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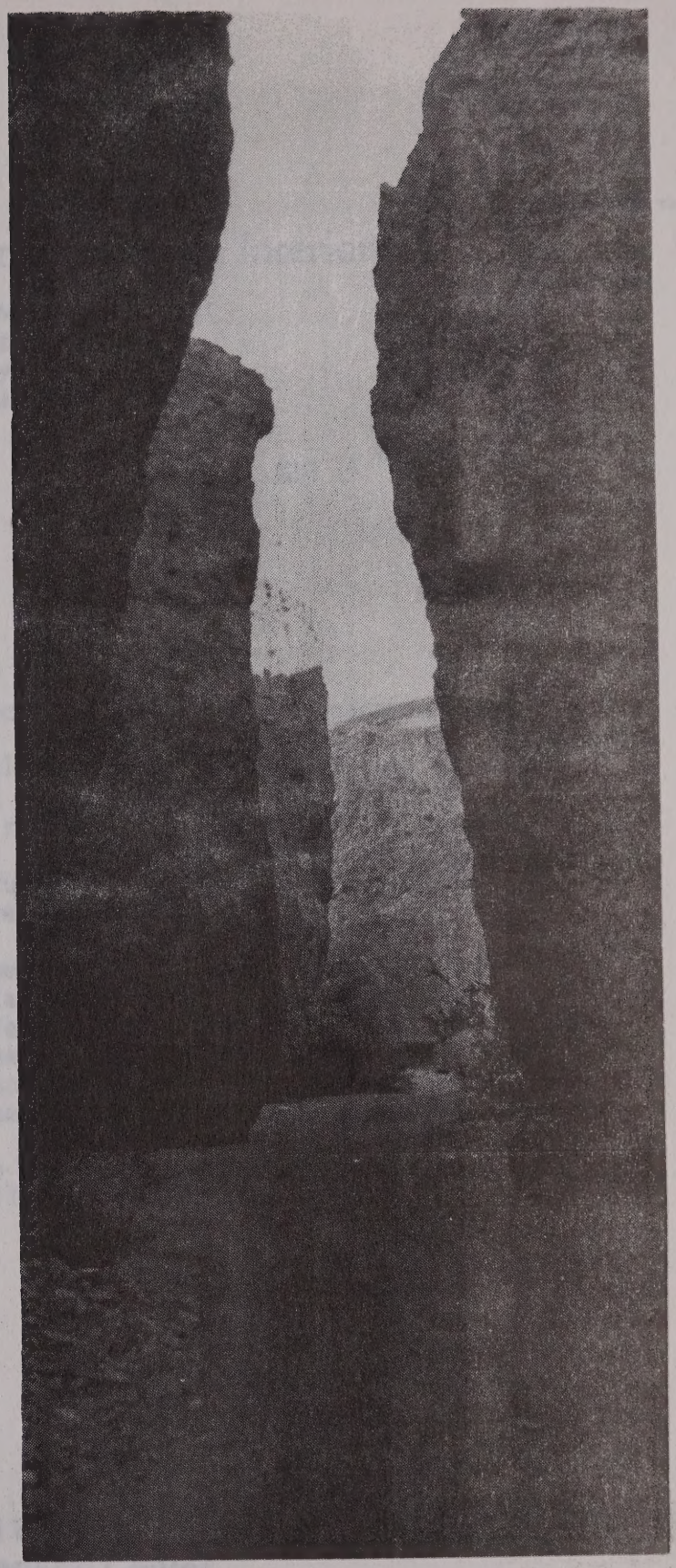

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# FINAL MECCA HILLS RECREATION MANAGEMENT PLAN

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IN REPLY REFER TO

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(C-066.32)

# United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Indio Resource Area
3623 H101 Canyon Crest Drive
Riverside, California 92507

BUREAU OF LAND MANAGEMENT
150 COOLWATER LANE
BARSTOW, CA 92311

AUG 4 1980

Dear Citizen:

Enclosed is a copy of the Final Mecca Hills Recreation Management Plan.

The first draft of the plan was released in September 1979. In response to public comment, a revised draft was prepared and distributed in February 1980 reflecting comments received. By the end of the second public comment period on April 21, 1980, over 180 comments were received. These comments were carefully analyzed and changes suggested by comments were incorporated where appropriate.

The Mecca Hills Recreation Management Plan has been prepared in conjunction with the comprehensive plan for the California Desert Conservation Area. The desertwide plan because of its large scale will be general. The Mecca Hills Recreation Plan formulates specific recommendations to protect key resources and at the same time enhance user enjoyment of the area by education and reduction of user conflicts.

I would like to thank everyone who assisted in preparation of the management plan by submitting public comments.

Sincerely,

Brian B. Booher
Area Manager

Enclosure

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# MECCA HILLS RECREATION MANAGEMENT PLAN

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DEPARTMENT OF THE INTERIOR
THE BUREAU OF LAND MANAGEMENT

RIVERSIDE DISTRICT
INDIO RESOURCE AREA

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FINAL
# MECCA HILLS
# RECREATION MANAGEMENT PLAN

AUGUST 1980

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DEPARTMENT OF THE INTERIOR
THE BUREAU OF LAND MANAGEMENT

RIVERSIDE DISTRICT
INDIO RESOURCE AREA

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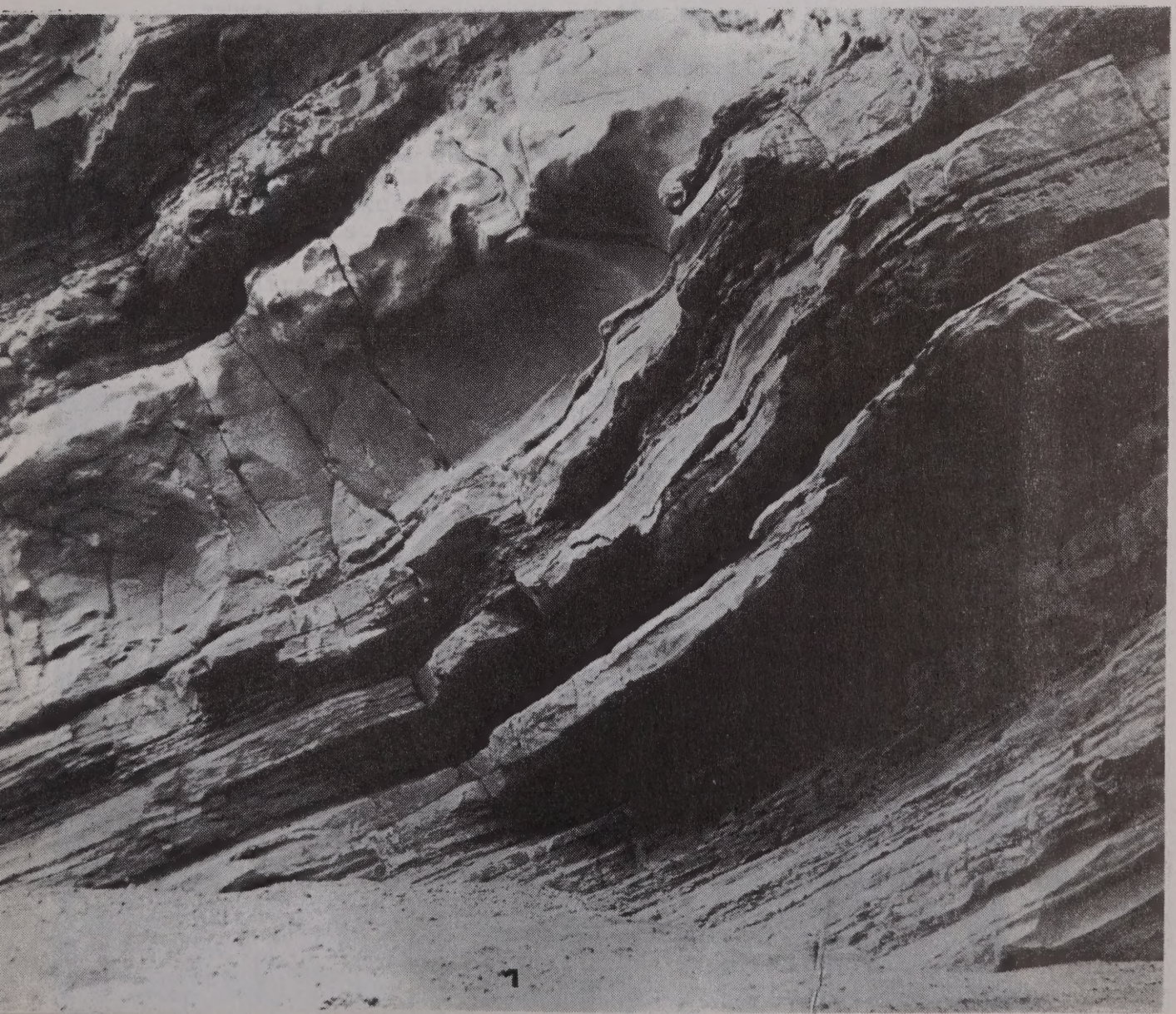
# I. PURPOSE

The purpose in developing a recreation management plan is to establish guidelines for the protection and use of the Mecca Hills Recreation Area. Scenic, geologic, biologic, historic and archaeologic values have been recognized as the important elements of the recreation resource. Uncontrolled and unmanaged, conflicts have arisen among users, decreasing the recreational values for many.

## RELATIONSHIP TO DESERT PLAN

The Mecca Hills Recreation Management Plan precedes the comprehensive plan for the California Desert to immediately reduce conflicts and to increase recreation enjoyment in the area. In addition, immediate management guidelines are provided for Wilderness Study Area #343.

While complete compatability with the Desert Plan is expected, changes are possible, in which case the Desert Plan could change or modify portions of this Recreation Management Plan.



# II. MAJOR RECOMMENDATIONS

-- Allow the use of off-road vehicles only in designated areas (see Management Plan Map).

-- Provide increased enforcement personnel to manage visitor use in the area.

-- Acquire rights-of-ways through key privately owned sections to insure the continued legal acess of the area.

-- Protect the wildlife habitat by closing critical areas to vehicular use during key seasons.

-- Provide information kiosks at key locations. These centers will inform visitors of recreational opportunities in the Hills and interpret significant features.

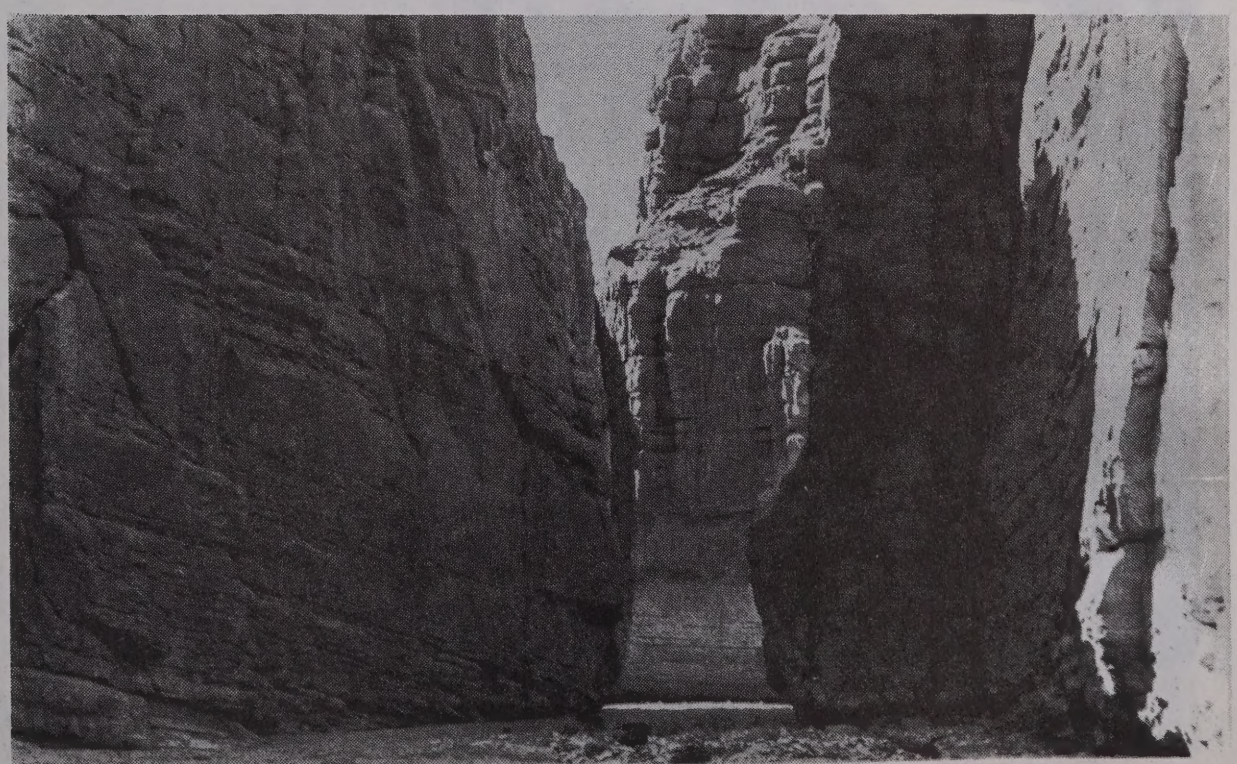
-- Prohibit the cutting of live trees. Collection of dead and down vegetation for firewood is permissable.

-- Institute an interpretive program to make visitors aware of the resources in the area.

-- The safe use of firearms is permitted when in accordance with California Fish and Game and local regulations.

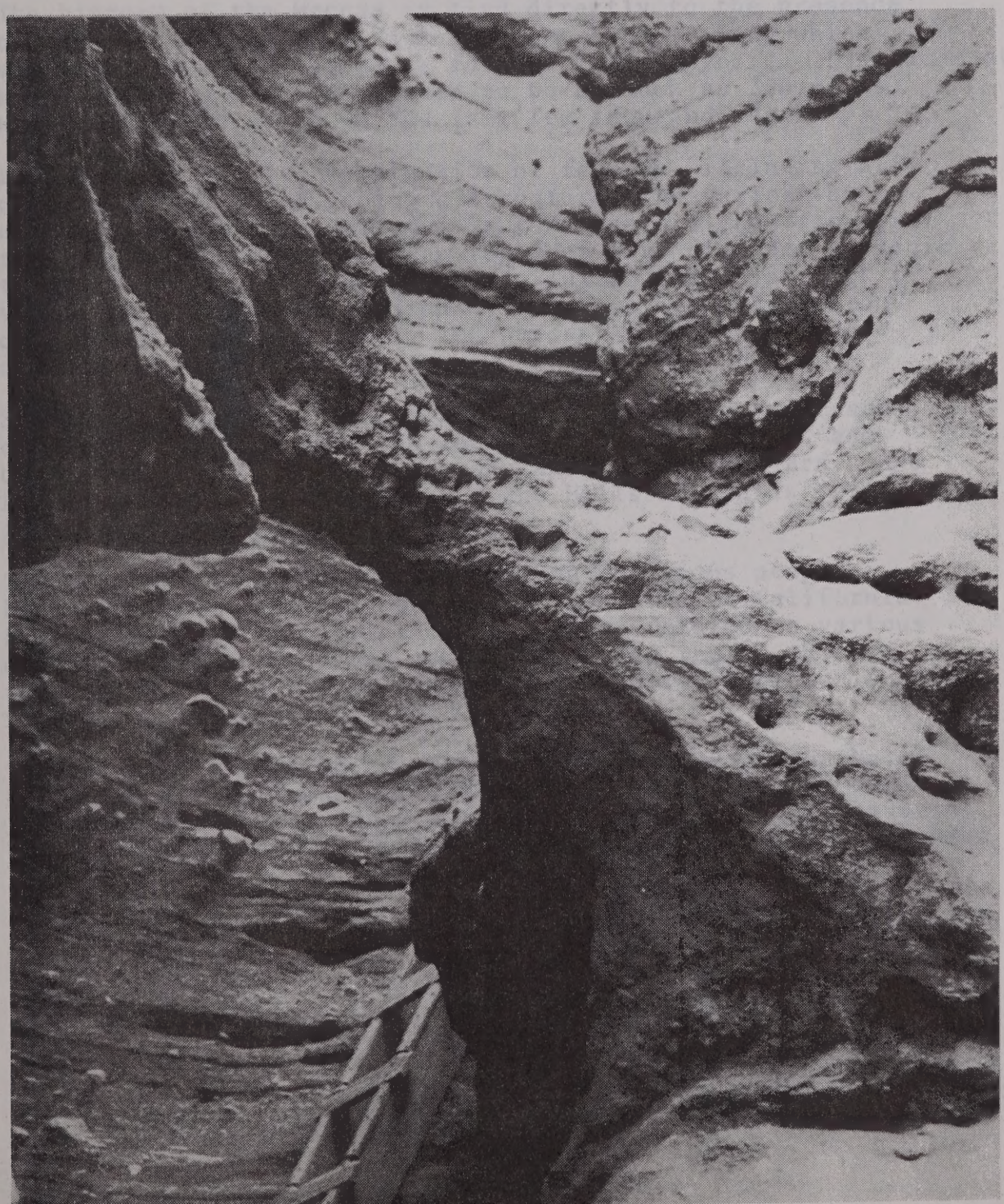
-- Encourage camping in designated campgrounds. Dispersed camping may take place in any area of the Mecca Hills with the exception of Hidden Springs Oasis and Sheep Hole Oasis.

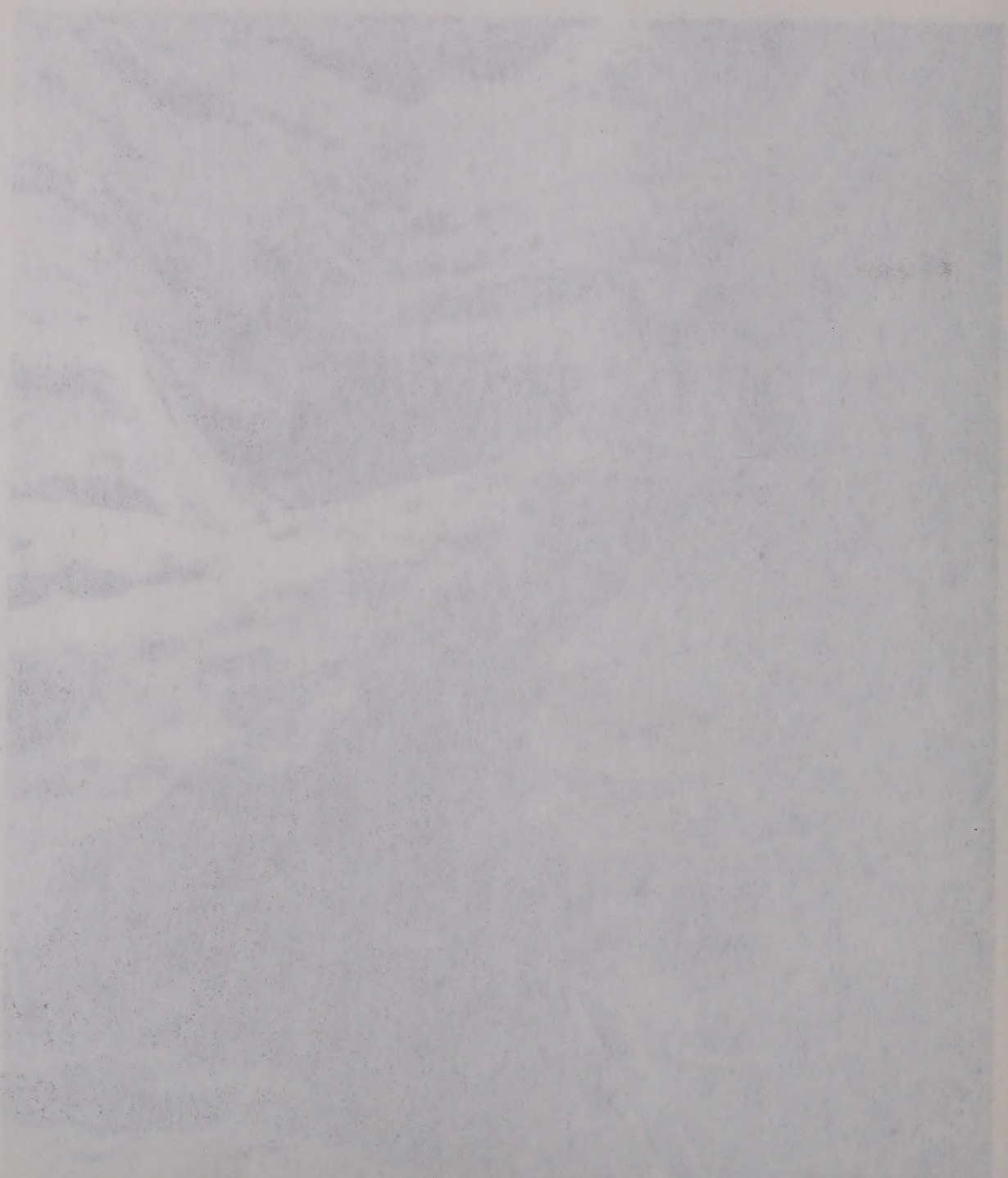
-- Acquire from the County of Riverside the campground at Painted Canyon to provide for continuity in management and redesign of the facilities.



# III. CONSTRAINTS

At the present time no complete management plan exists for the Mecca Hills. Currently BLM is preparing a comprehensive plan for the California Desert Conservation Area as required by Section 603 of the Federal Land Policy and Management Act of 1976. The plan, by its nature, will be very broad and general. The Mecca Hills Recreation Management Plan is intended to be consistent with the Desert Plan's goals and objectives and form the basis for immediate site specific implementation to reduce user conflicts and protect key resources. An Environmental Assessment Record (EAR) included in this report, discusses protective measures, constraints, and the environmental impact of implementation versus no action.





# IV. BACKGROUND

The following discussion will give insight into history and activities in the Mecca Hills which prompted the development of this management plan.

## HISTORICAL PERSPECTIVE

Although the formation of the Mecca Hills took place well under one million years ago, rocks contained in the Hills have been dated to 600 million years, the oldest rocks in California.

The history of the Meccas is tied directly to the presence of the San Andreas Fault and adjacent faults along which motion has been taking place for 150 million years. Displacement since then has been calculated to be as much as 350 miles, with perhaps 10 miles in the last few thousand years.

Because of a special combination of factors, including arid climate, erosion and geologic structure, the variety and exposure of geologic features is remarkable. The effects of the faults have been to bring together five distinct geologic terrains rarely found so compactly juxtaposed. The lack of vegetation and recent erosion by drainage into the Salton depression provide a nearly 100 percent exposure of these diverse geologic features.

Sporadic use of the Mecca Hills has occurred for thousands of years. Fossils found in the Hills include horses and camels which date to the Pliocene and Pleistocene Era. The Desert Cahuilla Indians crossed the Hills on trails settling in villages on occasion.

The arrival of European and other nonindigenous peoples began in the early 19th century in this area of California. For the most part, initial contacts were related to various expeditions and traveling parties who used routes through the region. As a result, there are few written historic records on the Mecca Hills.

The relatively forbidding environment provided in the Mecca Hills restricted human settlement here, except in the few locations where year-round water was available (e.g. Shaver's Well). The geological composition of the Mecca Hills precluded

the establishment of the region as a viable mining district since little or no economic minerals are present. The Hills do contain quantities of sand, gravel, and decorative stone, but these materials were also available elsewhere and, therefore, not obtained here to any degree of magnitude. The Hills have also been used as background for several Hollywood movies.

Today, the Mecca Hills serve largely a recreational function. Off-road vehicles, hikers and sightseers are the primary users, but the Hills also serve an important function as an area for procurement of resources for the Desert Cahuilla Indians.

## PRESENT STATUS AND USE

The Mecca Hills Recreation Area was designated by the Secretary of the Interior in May 1972 (43 CFR Subpart 2070) for management with emphasis on recreation. The Unit is comprised of 41,308 acres with 20,417 acres of public land managed by BLM.

The Hills provide the public with a variety of recreational opportunities ranging from extensive ORV use to sightseeing and photography. Due to the proximity of a major urban center, (Los Angeles is 180 miles from the Hills and Indio is only a half hour) the Meccas are a valuable recreation area.

Until 1974, a checkerboard pattern of land ownership existed in the Hills. Except at the north and south ends of the area, the privately owned sections were owned by the Southern Pacific Land Company as a result of the Pacific Railroad Act signed by President Lincoln in 1862. The Bureau exchanged land in other areas for several of these sections and also completed the exchange of three sections with another private owner.

Many of the privately owned sections have been subdivided into numerous parcels (see Ownership/Features Map).

Approximately 1½ sections are presently in withdrawal status to the Torres Martinez Indian Reservation.

The section in which the Painted Canyon campground lies (Sec. 36, T. 6 S., R. 9 E.) was purchased from the State of California by Riverside County in 1967. The County appears willing to exchange this parcel with the BLM.

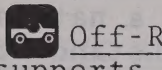
The Mecca Hills' popularity with recreationalists is due in part to its accessibility by vehicle. Access can be obtained through the town of Mecca on Avenue 66. The Mecca exit off of I-10 provides access from the Interstate.

The Hills contain one Interim Critical Management Plan designated closed area (12 sections with a corridor). Approximately two sections are designated open to all forms of off-road vehicle use. The remainder of the area is designated Special Design and Designated Roads and Trails.

The California Natural Area Coordinating Council has identified the Mecca Hills as a candidate natural area (#331330). Natural areas are lands having unusual and/or valuable natural characteristics or outstanding resource characteristics. The Mecca Hills have been proposed for designation due to the recreational potential of the area.

The area is managed by the BLM primarily for recreation.

RECREATION RESOURCE USE

 Off-Road Vehicle Use - The Southern California area supports one of the largest concentrations of vehicles capable of offroad travel in the United States. Interest in off-road vehicle (ORV) use is high in the Mecca Hills. Four wheel drive vehicles and motorcycles utilize the area extensively for recreation travel. Sightseers, rockhounds, scientific researchers and others use off-road vehicles as a means of transportation to engage in a wide variety of activities. In the last decade, the use of ORVs for play has been popular in the Meccas causing a declining situation in other resource values.

Use is extensive in the washes, wide canyons and also up some of the more gently sloping hills. The variety of terrain, easy access and the large number of roads and trails provide ORV users with tremendous opportunities for recreation. Every jeep-able canyon has vehicle tracks with motorcycle use beyond the jeep range.

Resource damage caused by ORV use is evident in nearly all portions of the Meccas with heavist use in the area east of Box Canyon Road. Scarring from unregulated off-road vehicle play detracts from the scenic quality of the area and adversely effects geologic, wildlife and other recreational uses. Unfortunately, trash and litter are indications of

the amount of use a canyon receives. Due to the dryness and soil structure, erosion is rapid, further hastened by ORV use. Noise from ORVs (particularly motorcycles) is audible in the canyons. This noise is distracting to other users and has a detrimental effect on wildlife in the area.

Interim management regulations (ICMP) have not been enforced in the area because of an insufficient ranger force in the area. Signing of the closed area has never been accomplished. Due to the multitude of existing trails on the ICMP map, ORVs are allowed almost unlimited access. These regulations are temporary in nature, and upon completion of this recreation plan will be superseded, modified or amended by permanent recreation regulations.

Sightseeing Use - Sightseeing is done primarily by off-road vehicle users, hikers and backpackers on maintained roads and primitive trails. The Mecca Hills possess a variety of scenery ranging from extremely colorful, deeply eroded canyons to open badlands. Small, narrow, steep-walled canyons wind throughout the area creating a natural maze. Sandy washes dissect the area and contain stands of ironwood, smoke trees and palo verde. Two palm oases occur, with the one at Hidden Springs containing surface water.

Scenic quality is negatively impacted by some types of ORV use. Scars from vehicle hillclimbs are evident and distract from sightseeing enjoyment.

Equestrian Use - Minor equestrian use takes place in the Meccas. This is due to the scarcity of water and feed and conflicting ORV use.

Hiking - The Mecca Hills are well suited to hiking. Most areas are within easy hiking distance from maintained roads. Narrow, steep-walled canyons, winding caves and palm oases provide exciting experiences only available on foot. There are no developed hiking trails. Ladder Canyon and the grottos, are two scenic features only available to view while on foot.

Shooting - Informal target shooting takes place in the Mecca Hills. This type of use is sporadic and not necessarily associated with hunting. Some shooters do not practice acceptable safety precautions.

Picnicking - There are no developed picnic sites in the Mecca Hills. Litter deep in canyons indicates that almost every canyon has served as an informal picnic ground.

Camping - The County of Riverside manages the only existing campground in the Mecca Hills. It is located in Painted Canyon, Section 36, T. 6 S., R. 9 E. The campground contains a two-unit pit toilet restroom facility.

Currently, camping is not restricted to specific locations. Visitors, therefore use other areas as primitive campgrounds at many points in Box Canyon. On weekends and holidays, campers are abundant. Little Box Canyon, locations near the Coachella Canal, the "Mecca-Copia Trail," Hidden Springs, Sheep Hole Oasis and Enchanted Valley get substantial camping use.

Large numbers of Boy Scouts use the area. Often they backpack into campsites in Hidden Springs Canyon. Scouts also use Sheep Hole Oasis and the west fork of Painted Canyon for camping.

Camping at Hidden Springs has been shown to encroach upon the wildlife habitat.

## SCIENTIFIC RESEARCH USE

The Mecca Hills have provided material for advanced degrees in geology and are used frequently by both the University of California and California State University Systems for class field trips. The San Andreas provides textbook examples of geologic features found in no other area.

## CULTURAL RESOURCE USE

Historic and archaeologic evidence is lacking in the Mecca Hills due to severe past flooding. However, archaeologists have theorized that the Hills have been utilized by human populations for a variety of purposes for a considerable length of time.

Archaeological evidence indicates the area was probably used extensively throughout the late prehistoric period, or from approximately 900-1000 A.D. until 1500-1600 A.D. Earlier human occupation or utilization of this area is likely to have occurred, but remains to be adequately documented. The Mecca Hills have never been subjected to a complete, systematic archaeological reconnaissance, thus the full extent and variety of archaeological remains in the area is presently unknown.

## NATIVE AMERICAN USE

The Mecca Hills are significant to local contemporary Native American belief and value systems. The region figures predominantly in Desert Cahuilla mythology and is known to serve a variety of contemporary functions. These range from simple resource procurement to sacred areas of eminenet ritual importance. The specific locations of religious and ceremonial sites are often considered by Native American groups to be in and of themselves sacred. Such knowledge is often restricted, even within a given cultural group, to certain native "experts". Public knowledge of special sacred areas or locations could be sufficient impact to destroy the site's sanctity.

## HISTORICAL RESOURCE USE

The only recorded historic site in the Mecca Hills is Shaver's Well. This water source was located along a major trail leading from Mecca, on the west, through the Mecca-Orocopias, toward various settlements and mining areas to the east. This route essentially paralleled that of Box Canyon Road and Highway 60 to the east of the Mecca Hills. Shaver's Well was named after John Shaver, Riverside County Supervisor for 36 years between 1895 and 1935. The well was apparently excavated sometime between 1898 and 1900 and the locality saw intensive use until the 1930s. Due to extensive vandalism the well was filled and closed.

## OTHER RESOURCE USE

Mining - In the past, gravel pits have operated at the mouths of Thermal Canyon, Box Canyon, and Unnamed Canyon. In 1971, the pit at Unnamed Canyon was reactivated by Van's Rock and Sand of Thermal and produces an estimated 20,000 cubic yards per year. There is no other mining activity and no patented mining claims.

Communication - At the point of highest elevation (1812 feet) in the northeast corner of the area, there is an airway beacon and a microwave relay station retained by Southern Pacific.

A pole line exists across the north end of the area that follows Thermal Canyon for about three miles from the mouth of the Canyon and then proceeds eastward. A power transmission line parallels the Coachella Canal. These communications features however are minor in context with the vastness of the Hills.

A 500 kV transmission line for Southern California Edison (Devers-Palo Verde) will pass on portions of the north side of the Hills parallel to I-10. The line will be out of sight of the majority of use in the area.

## FACTORS AFFECTING RECREATIONAL USE

Access - The Mecca Hills are easily accessible to the public. From the north, Interstate 10 provides ready access to the Hills at the Mecca exit. Avenue 66 from the town of Mecca serves visitors from the south. The Hills are traversed by Highway 195 through Box Canyon between Mecca and the Joshua Tree National Monument. From Highway 195 near the Coachella Canal, a dirt road maintained by Riverside County leads into Painted Canyon. Nearly every portion of the Hills are accessible by road or trail.

Hazards - Flash floods are a constant problem in the desert. They can occur without rainfall in the immediate area, causing tremendous destruction in their path. Highest danger season, however, is in August-October when use in the Hills is low.

A hazard is present from target shooters practicing without observing proper safety precautions.

The area is seismically active and earthquakes are common. The poorly consolidated units combined with the seismic activity create a potential for landslides in areas with steep slopes.

# V. OBJECTIVES

RECREATION MANAGEMENT

Provide for improved recreation use, interpretation and protection of resource values in the Mecca Hills Recreation Area by reduction of user conflicts.

ADMINISTRATIVE MANAGEMENT

Provide the personnel, jurisdictional authority, and facilities to reduce conflicts necessary to achieve improved recreational experiences, while at the same time protecting the other resources present.

OTHER RESOURCE MANAGEMENT

Wildlife Resource - Manage recreational use to protect both wildlife and wildlife habitat from any further human related impacts.

Visual Resource - Manage recreational use to comply with the established BLM visual resource management classes. Assess visual impacts caused by new developments and provide mitigating measures for new developments and existing intrusions using the BLM visual resource contrast rating system.

Cultural Resource - Manage recreational use to minimize the impacts to cultural values and Native American values.

Geologic Resource - Manage recreational use to maximize interpretive possibilities while protecting geologic research potential.

# V. OBJECTIVES

# VI. MANAGEMENT PLAN

Management goals and actions are needed to implement the specified goals for specific recreation activities in the Mecca Hills.

RECREATION

Program Goal - Manage recreation to resolve conflicts between users, while minimizing impacts on other resources, and maximizing the recreation experience consistent with sound multiple use management practices.

MANAGEMENT PHILOSOPHY - Manage the Mecca Hills Recreation Area to protect, preserve and enhance the values found within the unit. Carry out the management of recreational activities with minimal intrusions and impacts on the other leading resource elements. The scenic, cultural, geologic and biologic values are recognized as the leading resource elements in the Mecca Hills.

Because of the variety in recreational uses and individual users, recreation opportunities will be generally unstructured, thereby providing each user the opportunity for free expression, except where one activity impairs the enjoyment of other activities.

VEHICLE USE

Management Goal - Allow vehicle use only in designated areas (see Management Plan Map).

Actions -Close certain areas in the Mecca Hills Recreation Area to vehicle use. Allow use on existing roads and ways in designated areas as shown on the Management Plan Map. Allow vehicle use in Painted Canyon to a point above Ladder Canyon. At this point a barricade will be placed in the Canyon to close the upper section's of the canyon to motorized vehicle use. Close Hidden Springs Canyon and the Mecca-Copia Trail seasonally (June 1 - September 30) to protect wildlife resources. Obtain rights-of-ways through key privately owned section to insure the continued legal use of the area. Hidden Springs Oasis will be closed to vehicles yearround.

Discussion - Conflicts arising from uncontrolled vehicle use have resulted in a need to restrict vehicle use to designated areas.

In order to comply with Federal regulations, provide a quality recreation experience, and maintain the overall

integrity of the area, it is necessary to restrict vehicle use to the extent described. A need for additional roads and trails is not indicated at this time. All vehicle use will be governed by local, State and Federal laws and regulations.

The seasonal closure of Hidden Springs Canyon and the Mecca-Copia Trail is to insure the protection of bighorn sheep who migrate from the Orocopia Mountains to the Mecca Hills to water in the summer season. This area will be closely monitored to determine the effectiveness of this action.

Rights-of-way (R.O.W.) acquistions across key private sections in the eastern portion of the hills will be a high priority item in implementation of the plan. Corridors shown on the management plan map are generalized areas where indepth study will take place to find an appropriate R.O.W.'s. Until such time as R.O.W.'s are acquire, users should consult landowners for permission to use private land.

Implementation - Publish the vehicle use restrictions in the Federal Register and in local, State and Federal publications designed to alert the general public to these changes. Post maps at information kiosk in the area to inform the public of vehicle restrictions. Help the public interpret the reasons why restrictions were placed in effect by providing informational signs on kiosks. Initiate a study to determine the feasibility of restoirng impact areas.

Obtain rights-of-way through key privately owned sections to insure continued legal use of the area. Until such time as rights-of-ways are acquired, users should consult landowners for permission to use private land.

Study the feasibility of acquiring rights-of-ways in corridors indicated on the management plan map. If feasible, corridors will be surveyed for exact locations followed by negotiations with landowners to reach the amount of compensation for the R.O.W.

Enforcement of these restrictions will be carried out by an authorized law enforcement official. Warnings may be given by any Bureau employee.

CAMPING

Management Goal - Provide opportunities in the recreation area for both developed and undeveloped primitive camping.

Actions - Obtain the campground at Painted Canyon from the County of Riverside. Provide ramadas, picnic tables, improved sanitary facilities and an interpretive kiosk.

Construct a campground at Box Canyon. Furnish a restroom with two pit toilets and an interpretive kiosk.

Allow dispersed primitive camping to take place in all areas of the Hills with the exception of Hidden Springs Oasis and Sheep Hole Oasis. Dispersed camping will be allowed for those in search of a more primitive camping experience.

Campfires will be allowed in all areas that are safe. Firewood may be collected from dead and down vegetation. No cutting of live trees will be permitted.

Discussion - Riverside County has for some time been anxious to negotiate an exchange with BLM for the Painted Canyon Campground section. This section would not only provide BLM with an established campground in the area, but would facilitate management of the area by creating one contiguous block of land administered by BLM.

By allowing dispersed primitive camping, the impact of recreational use on other resources will be less concentrated. The removal of campers from Hidden Springs Oasis and Sheep Hole Oasis will help to restore wildlife to the areas.

Implementation - Initiate the following improvements for camping as funding becomes available.

Developed Camping Area (Painted Canyon and Box Canyon)

Information Kiosk - with interpretive information and vehicle designations at Painted Canyon and Box Canyon Campgrounds.

Restrooms - provide a new facility at Box Canyon campground and renovate facilities at Painted Canyon campground (remove roof, paint, general repair).

Ramadas and Picnic Tables - at Painted Canyon camp grounds only.

Enforcement of all camping area regulations will be carried out by an authorized law enforcement official. Warnings can be issued by other BLM employees.

## FIREARMS USE AND HUNTING

Management Goal - Enforce California Fish and Game and local firearms regulations for a safer recreational experience for Mecca Hills users.

Actions - No shooting will be allowed:

1. Within ½ mile of a campground
2. Within 150 feet of a paved road
3. Within 500 feet of an occupied structure (including campers)
4. While user is intoxicated or if shooting is done in an unsafe manner.

Discussion - In the past, users of the Mecca Hills have advised the BLM that there is negligent use of firearms in the Hills.

Due to the hazards associated with the discharge of firearms in a small, intensively used recreation area, certain management restraints must be implemented to assure visitor safety.

Implementation - Provide kiosk on entry road and in campgrounds posting safe shooting regulations. The enforcement of these restrictions will be the responsibility of an authorized enforcement official.

PICNICKING

Management Goal - Provide areas for picnicking by nonrestrictive use of the area for this activity.

Action - None.

Discussion - Picnicking can take place in any area without damage to resources. Picnickers will be instructed on kiosks to carry out whatever trash they bring in.

Implementation - Information will be provided for users on kiosks.

SIGHTSEEING

Management Goal - Enhance sightseeing opportunities through proper management of all resources.

Actions - Develop an Interpretive Plan to identify sites valuable for interpretation and provide for interpretation of the Mecca Hills through signs and interpretive kiosks. Complete a study on the feasibility of restoring areas impacted by ORV use. Rehabilitate (by natural or mechanical means) any trail or disturbed area that will not be designated for use by ORVs.

Discussion - Interpretation will enhance the quality of the sightseeing experience. Only those sites that can withstand this use and which possess interpretive values will be considered.

Implementation - Sites found suitable for interpretive work by the Interpretive Management Plan (IMP) will be signed as funding becomes available. These signs will explain the site's significance. Signs will be a consistent design motif specified in the IMP.

Complete a study on the feasibility of restoring areas impacted by ORV use.

NATURE STUDY AND RESEARCH

Management Goal - Allow nature study and research by individuals and institutions in the Mecca Hills.

Action - None, opportunities exist at present.

Discussion - Numerous individuals and university classes use the Mecca Hills for geologic research. The hills provide a textbook example of the dynamic geology associated with faults.

Implementation - None. Allow continued use.

EQUESTRIAN USE

Management Goals - Provide opportunities for horseback riding to continue in the Mecca Hills.

Actions - Monitor use to see if conflicts arise from increasing usage which would need regulation. The level of equestrian use at this time does not warrant any developed trails or facilities.

Discussion - Horseback riding takes place in the Meccas in limited numbers. Monitoring will take place on uses of the area by equestrians to see if increased impacts to other resources occur requiring regulation.

Implementation - Information on opportunities will be provided on the kiosks.

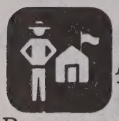
HIKING

Management Goal - Provide opportunities for hiking in the Mecca Hills Recreation Area.

Actions - None. Kiosk, with interpretive literature, will enable hikers to enjoy the Mecca Hills more meaningfully.

Discussion - Hiking use takes place in the Mecca Hills, but at this time does not warrant any developed trails or trail system. Any future trail system could be used to route users to scenic and cultural areas. In the closure of some existing vehicle routes, conflicts will be reduced that now occur between motorized vehicle users and hikers. A safer more pleasurable recreational experience will be provided.

Implementation - Information will be provided for hikers on kiosks.



## ADMINISTRATION

Program Goal - Provide administrative control to manage visitor use and ensure protection and preservation of the Mecca Hills.

Management Philosophy - Past experiences at the Mecca Hills points out the need to regulate and protect the facilities, resources and users within the recreation area. The Federal Land Policy and Management Act of 1976 provides for the protection and enhancement of public lands.

The management philosophy for the Mecca Hills Recreation Area will be to provide administrative control to protect the resources from unauthorized uses and abuses as well as to initiate public awareness programs to ensure the protection and preservation of the area.

VISITOR PROTECTION - Through informational/interpretive kiosks, visitors will be advised of the potential hazards present in the recreation area; i.e., landslides, earthquakes, poisonous animals (insects, scorpions, spiders and rattlesnakes), flash flood. Procedures will be developed for emergency operations in the recreation area which will coordinate BLM with existing local search and rescue and other emergency organizations.

ENFORCEMENT - The key to successfully implementing this plan will be a well developed and organized law enforcement program. This will involve utilizing full-time, well trained Bureau employees with full enforcement capabilities. Patrol of the Mecca Hills will be increased to levels necessary to effectively manage visitors and the resources.

MAINTENANCE - An active maintenance program is an essential element of this plan. Facilities will be maintained on a regular basis.

PUBLIC AFFAIRS - Implement a well organized public awareness program to advise the public of ongoing and proposed programs, new restrictions and regulations, and the recreational opportunities available in the recreation area. This program can take advantage of interpretive/informational kiosks.

MONITORING USE - Develop an efficient means of systematically gathering and analyzing visitor use information to monitor use in the recreation area. Traffic counters will be installed, maintained and monitored. Recreation use surveys will be conducted on an annual basis during peak use periods to determine visitor use characteristics and identify trends.

# VII. DEVELOPMENT PLAN

The development concept aims at an optimum visitor use and enjoyment consistent with preservation and protection of the cultural and natural resources. The esthetic, historic and natural integrity of the entire Mecca Hills Recreation Area must be of prime consideration in all development.

## FACILITY AND SITE DEVELOPMENT

### PAINTED CANYON CAMPGROUND

The section (Sec. 36, T. 6 S., R. 9 E.) in which the campground at Painted Canyon is located will be acquired from the County of Riverside through an exchange presently under negotiation.

Facilities will then be redesigned to accommodate the numbers of campers that are anticipated to use the facilities. Improved facilities will include:

Kiosk - Which will provide information on the management plan (reasons for its existence), designation of open and closed areas for vehicle use, scenic areas, hazards, recreational opportunities, campground rules and firearm regulations.

Picnic Tables and Ramadas - Five ramadas and picnic tables will provide shade for campers and picnickers.

Sanitary Facilities - The existing sanitary facility will be modified to increase ventilation through the structure (remove roof). Regular maintenance will be provided to insure that the proper level of chemicals are kept in pit toilets and that toilets are pumped at least twice a year.

Regular monitoring of the facilities will indicate if the improvements provided are sufficient to handle visitor use. If increased numbers of users require additional facilities, they will be provided.

## BOX CANYON CAMPGROUND

The campground at Box Canyon will provide:

Kiosk - Which will provide information on the management plan (reasons for its existence), designation of open and closed areas for vehicle use, scenic areas, hazards, recreational opportunities, campground rules and firearm regulations.

Sanitary Facilities - Sanitary facilities will be provided at this campground. Two pit toilet units will be constructed on site. The design will be of an open top design to provide for ventilation. Regular maintenance will be provided to insure that the proper level of chemicals are kept in pit toilets and that toilets are pumped at least twice a year.

Regular monitoring of the facilities will indicate if the improvements provided are sufficient to handle visitor use. If increased numbers of users require additional facilities, they will be provided.

## TRAILS (HIKING AND EQUESTRIAN)

If visitor use levels indicate a need, trail systems for hikers will be developed in the Mecca Hills area. Any system of trails will be coordinated with the Interpretive Plan and will make maximum use of interpretive sites and scenic overlooks. Where possible, loops will be provided to enhance the recreation experience and reduce user congestion. All hiking and riding trails in the recreation area will be closed to motor vehicle use.

## ROADS AND TRAILS (VEHICULAR)

The proposed designations for roads and trails will be posted at the campground kiosks (at Painted Canyon and Box Canyon). A kiosk will also be provided at two locations on Box Canyon Road, one near Shaver's Well and one near the Coachella Canal.

All foot and equestrian trails will be designated on the kiosk. No additional routes are needed at this time.

Signing of the seasonal closure of Hidden Springs Canyon and the Mecca-Copia Trail will be erected at key locations.

A barricade will be constructed in Painted Canyon above Ladder Canyon to close the upper sections of the Canyon.

Where necessary, rights-of-ways (ROW) will be otained through key privately owned sections to insure continued legal use of the area by recreationist.

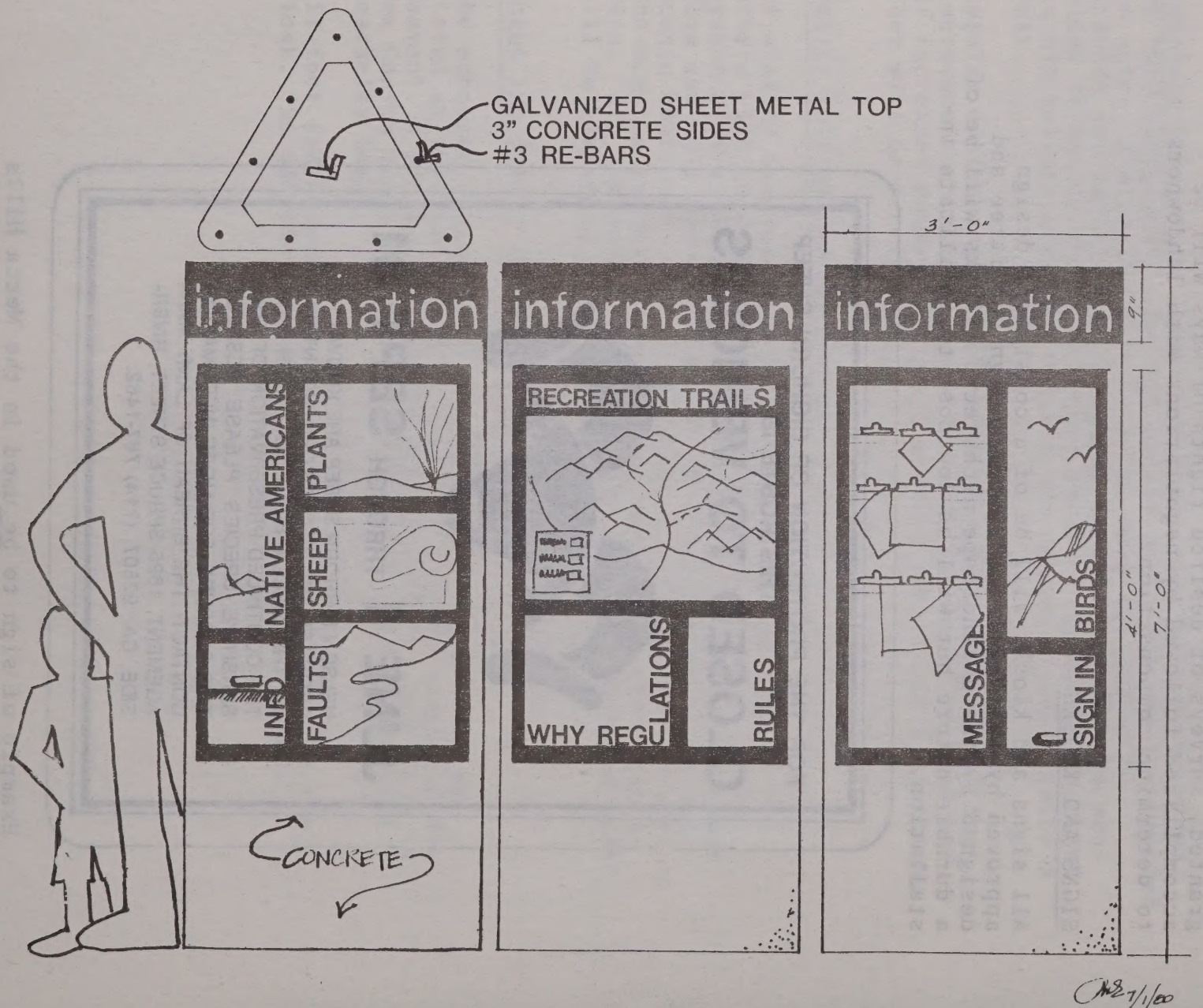
Permission to survey proposed ROW's will be obtainted from private landowners. After permission has been granted, surveys of desired rights-of-ways will be accomplished followed by negotiations with landowners to determine compensation.

SIGNS AND KIOSKS

All signs and kiosks will be of a consistent design approved by the Riverside District sign committee and designed by the a landscape architect. Kiosks will be of a durable nature but will be low cost to facilitate installation.

FOR THE PROTECTION OF BIGHORN SHEEP
THIS ROUTE IS
CLOSED TO VEHICLES
JUNE 1 THROUGH SEPT 31
NELSON BIGHORN SHEEP ARE KNOWN TO CROSS FROM THE OROCOPIA MOUNTAINS TO THE MECCA HILLS TO WATER. FOR THE CONTINUED PRESERVATION OF THIS SENSITIVE SPECIES PLEASE RESPECT THIS CLOSURE. FOR MORE INFORMATION CONTACT: THE BUREAU OF LAND MANAGEMENT, 1695 SPRUCE STREET, RIVERSIDE, CA 92507, (714) 787-1462.

Example of sign to be used in the Mecca Hills




7/1/00

KIOSK DESIGN - MECCA HILLS

# VIII. IMPLEMENTATION PLAN

Implementation of this plan will be accomplished in three phases. The phases indicate the general sequence of events required to implement the plan in an organized manner.

PHASE I

Enforcement - BLM law enforcement personnel will patrol the Mecca Hills Recreation Area on a regular basis. Enforcement will be a continuing program.

Maintenance - Maintenance functions will continue on all existing facilities in the recreation area, including any areas needing letter clean-up or rehabilitation. This will be a continuing program.

Survey and Design - Survey and design functions will be initiated on all proposed developments listed in the Development Plan.

Interpretive Plan - An Interpretive Plan will outline an interpretive program for the Mecca Hills and recommend interpretive measures for use at sites suitable for interpretation.

Federal Register Publication - Proposed use restrictions identified in the Management Plan will be published in the Federal Register.

Public Affairs- The BLM, Riverside District, Office of Public Affairs, will initiate a series of articles and news releases advising the public of ongoing and proposed programs, new restrictions and regulations, and the recreational opportunities available in the Mecca Hills.

Monitor Visitor Use - Collect visitor use data by utilizing traff counters and conducting annual recreation use surveys.

PHASE II

Construction of proposed projects and programs outlined in The Development Plan, will begin on a priority basis as funds become available. YACC labor will be used to construct proposed projects where feasible. Acquistion of rights-of-ways across private land, information kiosks, and the seasonal closure of Hidden Springs Canyon and the essco-Copia Trail through signing and priority items for implementation.

PHASE III

Any projects not completed in Phase II will be carried over to Phase III. Continue to implement program. Review entire project to determine if programs are meeting the goals of the plan. Review the plan as needed to reflect changing conditions, trends and public needs.

Priority of Developments

1. Acquistion of Rights-of-Ways across private parcels.
2. Kiosks (Painted Canyon Campground and Box Canyon Road.
3. Seasonal Closure of Hidden Springs Canyon.
4. Barricade (Painted Canyon).
5. Improvement of Restrooms (Painted Canyon).
6. Construction of Restrooms (Box Canyon).
7. Installation of picnic tables and ramadas (Painted Canyon).

# IX. COST ESTIMATES

| | | |
|---|---|---|
| *Painted Canyon Campground | | |
| 1 Kiosk (with interpretive signs) @ $3,000.00 | $3,000.00 | |
| 5 Picnic Tables and Ramadas @ $800.00 | $4,000.00 | |
| 1 Improvement of Existing Restroom Facilities (ex - Remove roof, paint) | $ 200.00 | |
| | | $7,200.00 |
| * Box Canyon Campground | | |
| 1 Kiosk (with interpretive signs) @ $3,000.00 | $3,000.00 | |
| 1 Restroom (2 unit) @ $5,000.00 | $5,000.00 | |
| | | $8,000.00 |
| * Additional Kiosk | | |
| 2 on Box Canyon Road @ $3,000.00 | $6,000.00 | |
| | | $6,000.00 |
| * Painted Canyon Road Closure | | |
| 1 Barricade @ $500.00 | $ 500.00 | |
| | | $ 500.00 |
| * Rights of Way Acquisition | | |
| 9 (approx. 1 mile x 50') R.O.W. | $4,000.00 | |
| | | $4,000.00 |
| Total | | $25,700.00 |
| 10% Contingency | | 2,570.00 |
| GRAND TOTAL | | $28,270.00 |

# IX. COST ESTIMATES

# APPENDICES

LOCATION MAPS . . . . . Page 35

CULTURAL RESOURCES. . . . . Page 37

SOILS AND GEOLOGY . . . . . Page 45

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Land Status Map, Natural Landmark Designation Map, Interim Critical Management Plan Map (ICMP), Geologic Map, Vegetation Map, Wildlife Map, Visual Resource Analysis Map (VRM), and Wilderness Designation Map are on file for review at the BLM Indio Resource Area Office, 3623 H-101 Canyon Crest Drive, Riverside, California.

LOS ANGELES
ANTELOPE VALLEY
LANCASTER
PALMDALE
EDWARDS AIR FORCE BASE
ROSAMOND
VICTOR VALLEY
VICTORVILLE
APPLE VALLEY
HESPERIA
LUCERNE VALLEY
SAN BERNARDINO
REDLANDS
YUCAIPA
RIVERSIDE
ONTARIO
FONTANA
COLTON
RIALTO
CHINO
CORONA
NORCO
PERRIS
HEMET
SAN JACINTO
BEAUMONT
BANNING
CALIMESA
PALM SPRINGS
CATHEDRAL CITY
RANCHO MIRAGE
PALM DESERT
INDIO
COACHELLA
THERMAL
MECCA
MECCA HILLS
JOSHUA TREE NATIONAL MONUMENT
TWENTYNINE PALMS
YUCCA VALLEY
MORONGO VALLEY
BARSTOW
DAGGETT
NEWBERRY SPRINGS
YERMO
HINKLEY
LENWOOD
CALICO
SAN FERNANDO VALLEY
SAN GABRIEL MOUNTAINS
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SAN GORGONIO MT.
SAN ANTONIO MTN.
MT. BALDY
MT. WILSON
MT. LUKENS
MT. GLEASON
PACIFICO MTN.
MT. WATERMAN
MT. McDILL
SAWTOOTH MTN.
STODDARD MTN.
FRY MTN.
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WEST COVINA
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EL MONTE
ALHAMBRA
MONTEREY PARK
CULVER CITY
INGLEWOOD
WHITTIER
LA HABRA
NORWALK
BUENA PARK
FULLERTON
ANAHEIM
ORANGE
SANTA ANA
GARDEN GROVE
SEAL BEACH
LONG BEACH
TORRANCE
LAKEWOOD
COMPTON
DOWNEY
SOUTH GATE
PICO RIVERA
WILMINGTON
SAN PEDRO
HUNTINGTON BEACH
NEWPORT BEACH
COSTA MESA
LAGUNA BEACH
LAGUNA HILLS
LAGUNA NIGUEL
MISSION VIEJO
LAKE FOREST
IRVINE
EAST IRVINE
EL TORO
CORONA DEL MAR
BALBOA
SOUTH LAGUNA
DANA POINT
SAN CLEMENTE
SAN ONOFRE
CAMP JOSEPH H. PENDLETON U.S.M.C.
OCEANSIDE
CARLSBAD
ESCONDIDO
SAN MARCOS
VISTA
SAN LUIS REY
VALLEY CENTER
FALLBROOK
BONSALL
RAINBOW
TEMECULA
MURRIETA
WILDOMAR
SEDCO HILLS
LAKE ELSINORE
ALBERHILL
HOMELAND
SUN CITY
WINCHESTER
ROMOLAND
PERRIS
MORENO
ARLINGTON
RUBIDOUX
PEDLEY
SUNNYMEAD
HIGHGROVE
MENTONE
CRESTLINE
LAKE ARROWHEAD
RUNNING SPRINGS
BIG BEAR LAKE
BIG BEAR CITY
FAWNSKIN
LANDERS
TIMICO ACRES
LYTLE CREEK
CAJON PASS
PHELAN
PIRON HILLS
WRIGHTWOOD
PEARBLOSSOM
LITTLEROCK
ACTON
SAUGUS
NEWHALL
SOLEMINT
CASTAIC
SIMI VALLEY
CHATSWORTH
CANOGA PARK
THOUSAND OAKS
CALABASAS
AGOURA
TOPANGA
MALIBU
SANTA MONICA
MARINA DEL REY
EL SEGUNDO
MANHATTAN BEACH
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SAN PASQUAL
RAMONA
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SANTA CATALINA ISLAND
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Amboy Crater
Alkali Flat
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Rodman Mtns.
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Placerita Canyon State Park
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March Air Force Base
Norton Air Force Base
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Los Angeles Int. Airport
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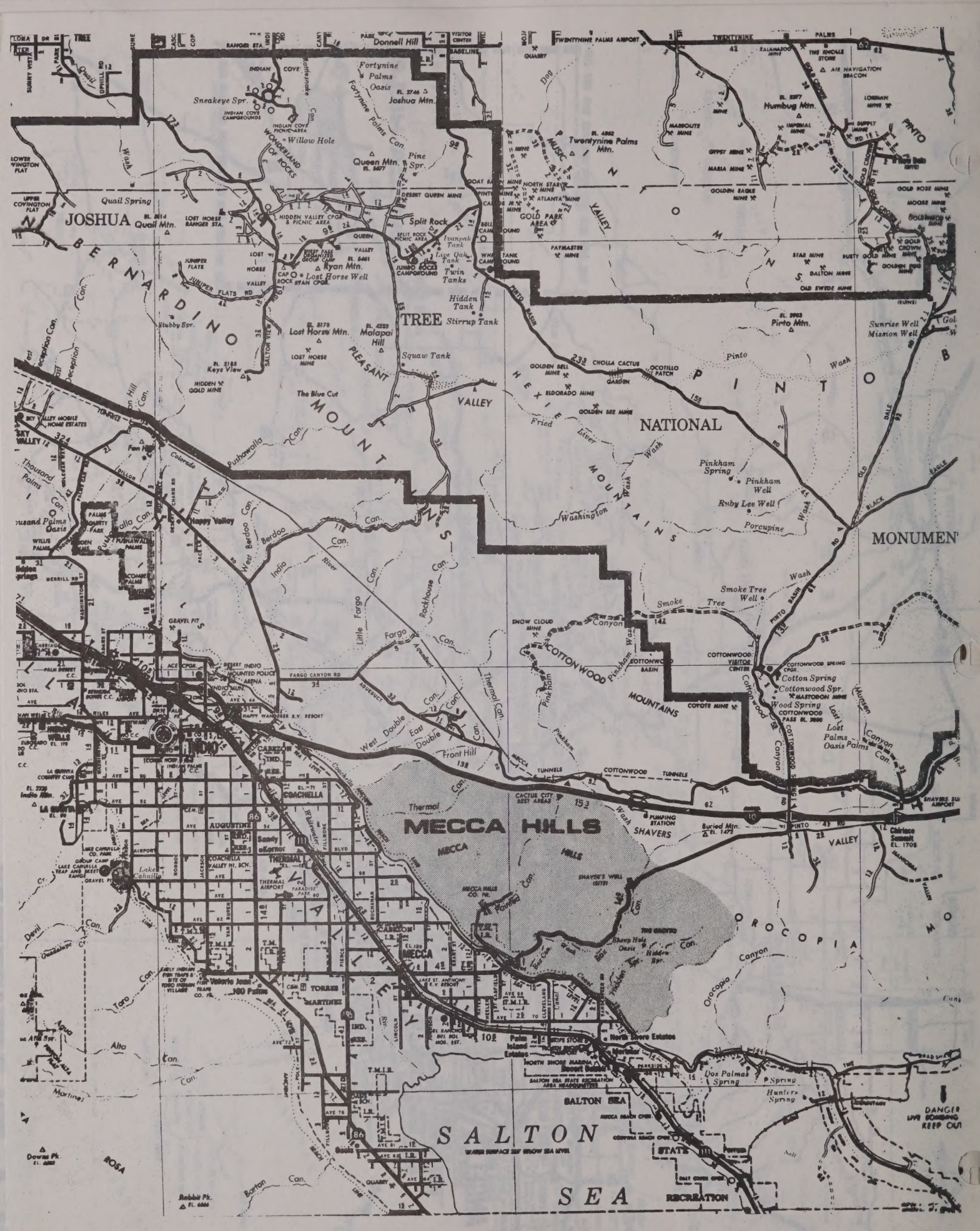
Johnsons Cove
Santa Barbara Channel
San Pedro Channel
Passenger Boat Route
Northwest Harbor
: Enlargement of this area


JOSHUA
TREE
NATIONAL
MONUMENT
MECCA HILLS
SALTON SEA
SALTON SEA STATE RECREATION
Donnell Hill
Fortynine Palms Oasis
Joshua Mtn.
Sneakeye Spr.
Willow Hole
Queen Mtn.
Pine Spr.
Quail Spring
Quail Mtn.
Split Rock
Twentynine Palms Mtn.
Humbug Mtn.
Pinto Mtn.
Lost Horse Mtn.
Malapai Hill
Keys View
Lost Horse Well
Ryan Mtn.
Squaw Tank
Hidden Tank
Stirrup Tank
Twin Tanks
Pinto Wash
Pinkham Spring
Pinkham Well
Ruby Lee Well
Smoke Tree Well
Cotton Spring
Cottonwood Spr.
Wood Spring
Lost Palms Oasis
Dos Palmas Spring
Hunters Spring
Mission Well
Sunrise Well
Thousand Palms Oasis
Indio
Coachella
Thermal
Mecca
Oasis
Salton Sea
Cottonwood Pass
Cottonwood Visitor Center
Cottonwood Tunnels
Cactus City
Shavers
Pumping Station
Buried Mtn.
Clarence Summit
Orocopia Mountains
Cottonwood Mountains
Little Morongo Canyon
Pleasant Valley
Mount Eisenhower
Fried Liver Wash
Washington
Porcupine Wash
Smoke Tree Wash
Pinto Basin
Dale
Old Eagle Mine Rd
Black Eagle Mine Rd
Gold Crown Mine
Gold Park Area
Gold Rose Mine
Moose Mine
Golden Eagle Mine
Golden Bell Mine
Golden See Mine
Eldorado Mine
Cholla Cactus Garden
Ocotillo Patch
Paymaster Mine
Star Mine
Rusty Gold Mine
Golden Crown Mine
Old Swede Mine
Balton Mine
Gypsy Mine
Maria Mine
North Star Mine
Atlanta Mine
Lucky Boy Mine
Massolite Mine
Imperial Mine
Lobman Mine
Kalamazoo Mine
Snow Cloud Mine
Mastodon Mine
Coyote Mine
Happy Valley
Sky Valley Mobile Home Estates
Desert Indio Mounted Police Arena
Happy Wanderer R.V. Resort
Indio Mun. G.C.
Desert Indio C.C.
Indian Palms C.C.
La Quinta Country Club
Palm Desert C.C.
Thunderbird Palms
Palm Springs Int'l Airport
Twentynine Palms Airport
Thermal Airport
Shavers Summit Airport
Coachella Valley Mt. Sch.
Lake Cahuilla
Lake Cahuilla Group Camp
Lake Cahuilla Trap and Skeet Range
Lake St. Anthony R.V. Resort
Fish Traps & Site of Torro Indian Village
Valerie Jean Trailer Co. Pk.
Palm Island Estates
North Shore Estates
North Shore Marina
Desert Shores
Salton Sea State Recreation Area Headquarters
Mecca Beach Camp
Corvina Beach Camp
Salt Creek Camp
Date Palm Mobile Home Estates
Mecca Hills Co. Pk.
Shavers Well (Site)
Sheep Hole Oasis
Hidden Spr.
Painted Canyon
Dos Palmas Spring
Spring
Gravel Pit
Quarry
Tunnels
Aqueduct
Thermal Can.
Rockhouse Can.
Little Fargo Can.
Fargo Canyon
Pinkham Canyon
Lost Palms Oasis Canyon
Orocopia Canyon
Mecca Hills Wash
Pumping Station Wash
Cottonwood Spring Wash
Cottonwood Canyon
Pinkham Wash
Smoke Tree Wash
Fried Liver Wash
Porcupine Wash
Pinto Basin Rd
Cottonwood Visitor Center Rd
Cottonwood Spring Rd
Fargo Canyon Rd
Mecca Rd
Cottonwood Tunnels
Front Hill Rd
Twentynine Palms Hwy
Baseline
Indian Canyon Dr
Ranger Sta.
Visitor Center
Park Headquarters
Oasis Visitor Center
Cap Rock
Wonderland of Rocks
Hidden Valley Campground & Picnic Area
Jumbo Rocks Campground
Belle Campground
White Tank Campground
Indian Cove Campgrounds
Indian Cove Picnic Area
Split Rock Picnic Area
Juniper Flats
Lost Horse Valley
Lost Horse Ranger Sta.
Lost Horse Mine
Hidden Gold Mine
Desert Queen Mine
Goat Ranch
Air Navigation Beacon
The Smoke Store
Quarry
Gravel Pit
Dale Eagle
Old Eagle Mine Rd
Black Eagle Mine Rd
Pinto Basin Rd
Twentynine Palms Hwy
Baseline
Indian Canyon Dr
Ranger Sta.
Visitor Center
Park Headquarters
Oasis Visitor Center
Cap Rock
Wonderland of Rocks
Hidden Valley Campground & Picnic Area
Jumbo Rocks Campground
Belle Campground
White Tank Campground
Indian Cove Campgrounds
Indian Cove Picnic Area
Split Rock Picnic Area
Juniper Flats
Lost Horse Valley
Lost Horse Ranger Sta.
Lost Horse Mine
Hidden Gold Mine
Desert Queen Mine
Goat Ranch
Air Navigation Beacon
The Smoke Store
Quarry
Gravel Pit
DANGER
LIVE BOMBING
KEEP OUT

## CULTURAL RESOURCES

The Mecca Hills have been utilized by human populations for a variety of purposes, and for a considerable length of time. The following cultural overview briefly outlines the present state of knowledge concerning the extent and nature of human use of this area.

### Prehistoric Human Utilization of the Mecca Hills

The antiquity of aboriginal utilization of the Mecca Hills locale is presently very poorly understood. Archaeological evidence indicates the areas was probably used extensively throughout the late prehistoric period, or from approximately 900-1000 A.D. until 1500-1600 A.D. Earlier human occupation or utilization of this area is likely to have occurred, but remains to be adequately documented. The Mecca Hills have never been subjected to a complete, systematic archaeological reconnaissance, thus the full extent and variety of archaeological remains in the area is primarily unknown.

As previously stated, the Mecca Hills probably saw extensive human utilization between about 900 A.D. and 1500 A.D. During this period, a large freshwater body of water filled the basin to the west of the Mecca Hills to an elevation of approximately 42 feet above mean sea level. This Holocene lake, named Lake Cahuilla (also called Lake Leconte or Blake's Sea), resulted from a prolonged diversion of the Colorado River into the Salton Basin (Wilkie 1978:51). Excess water in this basin then overflowed into the Gulf of California through an outlet channel presently occupied at its southern end by the Hardy River (ibid:51). When full, Lake Cahuilla was a sizeable body of freshwater. As stated by Wilke (ibid:53); "Lake Cahuilla extended from about 20 miles south of the international border to just northwest of the town of Indio, a total distanceof about 115 miles. The maximum width of the lake was about 34 miles, and the depth was nearly 320 feet".

The antiquity of the existence of Lake Cahuilla, and of human utilization of the favorable conditions provided by this lacustrial environment, is currently the subject of considerable inquiry. Three major lacustrial intervals are believed to have occurred in the last 2000 years (Wilke 1978:70-74). Each of these "lacustrial intervals" may have constituted single lake stands of prolonged duration, or several, shorter, successive lake stands (ibid:74). Available data presently suggest the earlier recent filling of

the basin began sometime around 0 A.D. (perhaps slightly before), and lasted until approximately 600 A.D. (Wilke 1978:74). At the present time, no substantive archaeological data are known which clearly date to this lacustrial interval (ibid). Two lacustrial intervals are indicated for the period after 900 A.D. (ibid). The first of these occurred from perhaps 900 A.D. until about 1250 A.D. The last stand occurred between approximately 1300 A.D. and 1500 A.D. (ibid:90). It was during these last two stands that the shoreline of Lake Cahuilla experienced intensive human occupation and utilization, as has been documented by a variety of archaeological data (cf. Wilke 1978, and others).

The Mecca Hills formed a portion of the northeast shoreline boundary of Lake Cahuilla, when the basin was full of water. Data indicates Lake Cahuilla washed against the western edge of the Mecca Hills, approximately at the point now occupied by the Coachella Canal. As previously stated, this shoreline was intensively inhabitated by a prehistoric human population, and a number of archaeological sites have been recorded here. Unfortunately, the construction of the Coachella Canal destroyed significant proportions of the beach line in this area, and probably most of the major archaeological deposits associated with it. This factor may account for the relative paucity of human habitation sites (e.g., long-term or permanent occupancy) having been recorded along the shoreline in this areas, as opposed to areas where the shoreline is presently more intact. Nevertheless, several such archaeological sites are known from the Mecca Hills, as well as a variety of other more specialied sites, such as aboriginal trails, olla caches, etc.

Ethnohistoric Human Utilization of the Mecca Hills

The Mecca Hills are centrally located in the region occupied ethnographically by the Desert Cahuilla people (Kroeber 1925:692-708 and Plate 1; Kroeber 1908:29-68; Strong 1929: 36-87, and others).

The Desert Cahuilla are one of three divisions of Cahuilla-speaking peoples who occupied inland Southern California. The Desert Cahuilla includes those people who lived in the Colorado Desert south of San Gorgonio Pass. Their related brethern, the Pass Cahuilla and the Mountain Cahuilla, inhabited the areas in the vicinity of San Gorgonio Pass, and the Santa Rosa and San Jacinto Mountains, respectively. All the Cahuilla groups belong to the larger Shoshonean linguistic family, and with their western neighbors, the Luiseno, Cupeno, and Juaneno form one division of the Southern California branch of that stock (Kroeber 1925:577; Strong 129:36).

Excellent ethnographic descriptions of the Cahuilla in general, and the Desert Cahuilla in particular, may be found in Kroeber (1925:692-708), Hooper (1920:316-380), Strong (1929:36-273), Bean (1972), Wilke and Lawton (1975:9-43), and others.

There is little doubt the Desert Cahuilla are the ethnohistoric survivors of prehistoric ancestors who inhabited the shores of Lake Cahuilla. Such a conclusion is supported by a variety of data sources including Cahuilla oral traditions which tell of the existence and demise of the lake and of aboriginal exploitation of fish and birds associated with it (See Wilke 1978:7-24 for a synopsis of this information). In addition, a number of aquatic species (particularly aquatic birds) are represented in Cahuilla cosmology, and are known by Cahuilla names (strong 1979:71; Wilke 1978:28).

The rapid desiccation of Lake Cahuilla which occurred sometime around 1500 A.D. necessitated a dramatic change in aboriginal lifestyles throughout this region. The decline of a freshwater lake of this magnitude with its complex of natural food resources would have sharply reduced the local environmental carrying capacity, especially until mesquite and other economically important vegetation were established in the basin (Wilke 1978:25). For this reason, major changes in local human demography have been postulated for the period which immediately followed the desiccation of the lake. These changes may have manifested themselves through a variety of adaptive mechanisms, as outlined by Wilke (1979: 25-26). Cahuilla legends contend that when the lake dried, people moved their villages down from the mountains (presumably the Santa Rosas) into the desert valley the lake had previously occupied (Strong 1929:37; Wilke 1978:189; and others).

The harshness of the environment in which the historic Cahuilla lived precluded casual selection of village locations. Historic Cahuilla settlement patterns are discussed in considerable detail by Strong (1929:43-59), Bean (1972:68-82), and by Lando and Modesto (1977:95-112). Bean provided an excellent description of historic Cahuilla village locations, which occurred as follows:

> "Villages were situated in areas which took maximum advantage of basic resources: climate, water, food, and materials. In the Upper Sonoran Life zone they were situated in well-watered canyons or on alluvial fans near streams or springs. These sites were also areas where plant foods and animals were available within a relatively short distance of the village. It has been estimated that 80 percent of edible plant

> foods were within a two-to-five mile radius of most villages. In the eastern desert region a slightly different pattern occurred. Here villages were located at the lower end of alluvial fans where a sufficient high water table enabled the Cahuilla to dig shallow wells to reach a dependable water supply and also to be near large clumps of mesquite. . .Once established, these villages were considered as permanent by the Cahuilla, the sites being the exclusive property of the specific lineages occupying them. Once a space was occupied it belonged to an identifiable sib and ranged from seventy square miles to over six hundred square miles in area (Bean 1972:73-74)."

Only a single historic Cahuilla village location is documented in the Mecca Hills study area. Several other such villages, however, are known in localities peripheral to the northwestern edge of the Mecca Hills. As indicated by Bean above, these village sites were situated "at the lower end of alluvial fans" where wells could easily be excavated to provide a reliable source of water.

The site of the historic village which occurs in the study area is reported to have been at the mouth of Painted Canyon (Strong 1929:53; James; notes on file BLM, Desert Planning Staff Cultural Resource Files; and others). This village, called Maswut Helaanut (Ceremonial Matting Spreading), was the southernmost of a line of villages established along the base of the Mecca Hills (Strong 1929:53)). Maswut Helaanut was occupied by a single lineage, called Kauwicpameauitcem (Caught by the Rock), according to Strong's informant Francisco Nombre (ibid). This village is also known as Cabezones (Cabezon's , after the infamous individual of the same name who lived here. Evidently, Mexican authorities made Cabezon head chief or captain over all Desert Cahuilla groups, as well as over those to the west of San Gorgonio Pass. Cabezon was already the head of several other villages, each apparently occupied by branches of the Kauwicpameauitcem lineage (ibid), or by other lineages Ikwanit ("bound together") with this group (cf. Lando and Modesto 1977:102-103).

Archaeological evidence for the location of the village of Maswut Helaanut is no longer present. Elderly informants at Torres Martinez Indian Reservation, however, remember the location and state the site was washed away during a flood in the first decade of the 20th century (Bob Laidlaw, DPS Ethnologist, personal communication). Aboriginal activity areas which were located peripheral to this site may still remain in the vicinity, but systematic inspection of the

area would be necessary to validate this. It is important to keep in mind the fact that Cahuilla villages often were several square miles in extent (Bean 1972:71; Lando and Modesto 1977:103). For example, a lineage comprised of 25 to 50 houses might be scatterd over a three to five mile area (Bean 1972:71).

Information provided by contemporary Native Americans (Torres Martinez Reservation) indicates the Mecca Hills are still of considerable importance to the surviving indigenous people of this area. In particular, the region is important for the procurement of a variety of floral, faunal, and mineral resources which are essential to the maintenance of Desert Cahuilla culture and society. Ethnological studies conducted by the Bureau of Land Management Desert Planning Staff produced a considerable body of data to support this contention. In fact, a total of 17 informants indicated they still procure resources in the Mecca Hills.

The Mecca Hills were called Qawish Yulish (or Kawish Ulish) by the Desert Cahuilla (Lando and Modesto 1977:111; and ethnological notes at DPS). This name translates as "clay mountain", and reflects the fact that the area was important as a source of clay from which pottery vessels could be manufactured (Lando and Modesto 1977:111). Suitable clay was not available on the valley floor (ibid). An interesting note in Hooper (1920:359) indicates two types of clay were used. The best quality was called Tesnit; the other Ulish (ibid). The creation myth of the Palm Springs Cahuilla also mentions two kinds of clay as having been "created" (Strong 1929:137-138). These were called Uliwut and Teviwut (ibid:138).

The Mecca Hills were known to the Mountain Cahuilla as Cupush Pah'wuali (where the barrel cactus grew). This data is significant since these plants are no longer present in the area. Perhaps the vegetation of the Mecca Hills has changed considerably in the recent past. The use of the past tense "grew" was very explicit on the part of the informant who provided this information (B. Laidlaw, personal communication). Today the Cahuilla must go elsewhere to procure this resource.

The Mecca Hills also figure importantly in Cahuilla oral traditions and cosmology. The area is where coyote ran to eat the heart of the creator Mukat, after he stole it from the cremation pit (Strong 1929:141; Lando and Modesto 1977:111). This is the reason given for the hills being stained red in color (ibid). Other legends also mention the Mecca Hills

and specific location in or adjacent to the area. For this reason the area is still ritually significant to the Desert Cahuilla and other Native American groups). The sensitive and confidential nature of much of the data available to demonstrate the degree of this importance does not allow for detailed description of specific ritual localities and their contemporary utilization. The ethnological files of the Bureau of Land Management Desert Planning Staff (and other sources) contain sufficient data to support the contention that the Mecca Hills are extremely significant to the maintenance of local Native American religious institutions.

Historic Non-indigenous Human Use of the Mecca Hills

The arrival of European and other non-indigenous peoples began in the early 19th century in this area of California. For the most part, initial contacts were related to various expeditions and traveling parties who used one or another established (probably aboriginal) routes through the region. As a result, few written historic records contain reference to the Mecca Hills area.

The only recorded historic "site" located in the Mecca Hills study area is Shaver's Well. This water source was located along a major trail or road leading from Mecca, on the west, through the Mecca/Orocopia's, toward various settlements and mining areas to the east. This route essentially paralleled that of Box Canyon Road and Highway 60 to the east of the Mecca Hills. Shaver's Well was named after John Shaver, Riverside County Supervisory for 36 years between 1895 and 1935. The well was apparently excavated sometime between 1898 and 1900, and the locality saw intensive human utilization until into the 1930's.

The relatively forbidding environment provided in the Mecca Hills restricted human settlement here, except for in the few locations where year-round water was available. The geological composition of the Mecca Hills precluded the establishment of the region as a viable mining district, since little or no economic minerals are present. The hills do contain quantities of sand and gravel, but these materials were also available elsewhere and, therefore, not obtained here to any degree of magnitude.

In recent years, the Mecca Hills have served largely a recreational function, mostly for off-road vehicular and other outdoor activities. The area contains localities of spectacular desert scenery, particularly where tectonic movement along the San Andreas and related fault systems have convoluted the surface into dramatic landforms of

intense and variable colors. The trail which leads up Painted and Ladder Canyons is a fairly well-known area of local scenic beauty. The Mecca Hills have also served as a back drop for a number of Hollywood movies, due to their relatively unique physical nature.

## Significance of Cultural Resources in the Mecca Hills

### Archaeology

The Mecca Hills have never been subjected to an intensive archaeological survey. Thus, conclusions regarding the significance of the region to the understanding of local human prehistory must be considered tenuous at this time. Several archaeological sites located peripheral to the study area certainly do meet the criteria needed for nomination eligibility to the National Register of Historic Places, as have been defined in 36 CFR 60.6. The proximity of certain of these sites, in particular Wadi Beadmaker (CA-Rive-881), suggest other sites of equal importance may be discovered in the Mecca Hills. Again, until further archaeological work is conducted here, the question of archaeological significance must remain open.

### Ethno History

The American Indian Religious Freedom Act (P.L. 95-341) requires all Federal Agencies to evaluate policies and procedures to determine possible impacts upon the traditional religious practices and beliefs of Native Americans.

The Mecca Hills are clearly significant to local contemporary Native American belief and value systems. The region figures predominantly in Desert Cahuilla mythology and is known to serve a variety of contemporary functions. These range from simple resource procurement to sacred areas of imminent ritual importance. The specific locations of religious and ceremonial sites are often considered by Native American groups to be in and of themselves sacred. Such knowledge is often restricted, even within a given cultural group, to certain native "experts". Public knowledge of special sacred areas or locations could be sufficient impact to destroy the site's sanctity.

### Non-indigenous History

Shaver's Well is the only historical locale identified within the Mecca Hills study area which could possibly be considered significant, as per the criteria defined in 36 CFR 60.6. This site, however, has been severely impacted

and the cabin which once stood here is now gone. Although one could argue that this site was important to the development and use of certain areas of the California Desert, it certainly did not play as long or as important a role as did the nearby Dos Palmas Spring oasis. Dos Palmas Spring was located on the famous Bradshaw Trail, which went from La Pas to Ehrenburg to Los Angeles.

## SOILS AND GEOLOGY

The Mecca Hills study area is dominated by the Mecca Hills, a very young anticlinal (domal) structure formed by continuous movement along the San Andreas Fault. The Orocopia Fault on the east side of the study area forms the eastern edge of the structure.

The rock units underlying the study area range from pre-Cretaceous metamorphic schists and gneisses to recent alluvium and lake sediments.

The major formations, in terms of area distribution, are the Palm Springs Formation and Ocotillo Conglomerates. These units form the Mecca Hills proper and consists of poorly cemented, non-marine sandstones, arkoses, siltstones, and conglomerates that have been rapidly eroded into a badlands type of topography with unstable slopes.

Economically the area contains several gravel pits along the Coachella Canal, a clay deposit in Section 20, T. 6 S., R. 9 E., and a manganese occurrence in Section 31, T. 6 S., R. 11 E. Only the gravel pits are active, the clay deposit is dormant, and the manganese occurrence is not of economic significance. The alluvial fans have a high potential for additional sand and gravel deposits, the Ocotillo Conglomerates may contain deposits of aggregate material.

The Palm Springs Formation and Ocotillo Conglomerate are known to contain vertebrate fossils of Pliocene and Pleistocene horses and camels.

The area is seismically active and earthquakes are common. A seismic hazard study undertaken by Riverside County has classified the area as subject to severe damage potential in the event of an earthquake along the San Andreas Fault. Three other major faults, the Mecca, Hidden Spring, and Orocopia Faults are in the study area. As these faults cut through and displace the youngest sediments in the area, they are considered active and potentially hazardous.

The poorly consolidated units present in the study area will be subject to potential landslides on steep slopes and canyon walls.

Soils are badlands type of configuration.

The hills are a textbook of geologic features - harboring rocks 600 million years old.

Because of special combination of factors including arid climate, recent erosion and structure, the general variety and exposure of geological features is remarkable. The effects of the great faults in the region have been to bring together five distinct geologic terrains rarely found so compactly juxtaposed. The lack of vegetation and the recent geologic stripping by drainage into the Salton depression provide nearly 100 percent exposure of these diverse geological components.

VISITOR USE - MECCA HILLS

| | Annual VUD | Area □ Miles | Annual VUD*/ □ Mile | Use |
|---|---|---|---|---|
| Thermal Canyon | 723 | 1.8 | 402 | F-1, M-1, Si, Sh |
| Lower Painted Canyon | 6511 | 3.5 | 1806 | Ca, Pi, F-1, 4, M-1, 4 |
| Lower Box Canyon | 9646 | 6.6 | 1462 | Ca, Pi, Sh, M-1, F-1, Si |
| Sheep Hole and Hidden Springs | 1447 | 3.5 | 413 | Ca, F-1, M-1 |
| Upper Box Canyon | 1206 | .95 | 1269 | Ca, F-1, M-1 |
| Shavers Well Area Upper Box Canyon | 4099 | 5.0 | 20 | Ca, F-1, M-1 |

F-1 = 4WD play
M-1 = Motorcycle play
Si = Sightseeing
Sh = Shooting
Pi = Picnic
Ca = Camping

*VUD - Visitor Use Days

## MANAGEMENT FEATURES ANALYSIS

| ACTIVITY | PROGRAM ELEMENTS | GOALS & REQUIREMENTS |
|---|---|---|
| Off Road Vehicle Recreation (motorcycle/4 WD) | Kiosk - showing trail locations/information on the area/places to leave messages/ map of areas for motorized vehicle use designations. | - No fragile resources<br>- No habitats of threathened, rare or endangered species of plants or wildlife<br>- No virgin desert pavement areas<br>- No archaeological or historical significant areas<br>- Separation from non-motorized recreation uses<br>- Diversity and challenge<br>- Varying scenery, terrain, surface texture, grade |
| Hiking | Kiosk - showing trail locations/information on the area/places to leave messages/ map of areas for motorized vehicle use designations. | - Separation from motorized recreation uses<br>- Diversity and challenge<br>- Varying scenery, terrain, surface texture, grade<br>- Areas to park vehicles |
| Campground | Ramadas and Picnic Tables<br>Sanitary facilities<br>Kiosk - informational with areas for messages/map of location of trails/map of areas for motorized vehicle use designations. | - shade<br>- scenery variation<br>- proximity to roads or trails |
| Off Road Vehicle Rehabilitation Areas | Signs - close areas to motorized vehicle use.<br>Kiosk - will show road designations for vehicle use. | - protect area from further destruction<br>- rehabilitated where<br>- badly impacted. |

## VEGETATIVE RESOURCES

The vegetation in the Mecca Hills is sparse. The area receives only 3" of annual rainfall which accounts for the sparsity of vegetation.

Two rare but not endangered plants listed by the California Native Plant Society are found in the area (See map for location) Machaerantaera cognatha, Mecca Aster and Salvia greatae, Orocopia sage.

The following are a listing of plant types found in the Mecca Hills.

Desert Ironwood (Olneya tesota)
Smoke Tree (Dalea spinosa)
Palo Verde (Cercidium floridum)
Mesquite (Prosopis juliflora glandulosa)
Desert Willow (Chilopsis linearis)
Desert Lavender (Hyptis emoryi)
Indigo Bush (Parosela Schottii)
Ghost Flower (Mohavea confertiflora)
Honey Sweet (Tidestromia oblongifolia)
Desert Holly (Atriplex hymenelytra)
Small Leaved Hoffmannseggia (Hoffmannseggia microphylla)
Cheese Bush (Hymenoclea Salsola)
AllScale/Cattle Spinach (Atriplex polycarpa)
Trixis (Trixis californica)
Arizona Lupine (Lupinus sparsiflorus arizonicus)
Smooth Stemmed Fagonia (Fagonia chilensis laevis)
Desert Fir (Peucephyllum Schottii)
Yellow Primrose (Camissonia spp.)
Brittle Bush (Encelia farinosa)
Sweetbush (Bebbia juncia aspera)
Small Seeded Sand Mat (Euphorbia polycarpa)
Pop corn flower (Cryptantha spp.)
Plicate Coldenia (Coldenia plicata)
Three awned grass (Aristida spp.)
Desert Trumpet (Eriogonum inflatum)
Turtle Back Velvet Rosette (Psathyrotes ramosissima)
Spectacle Pod (Dithyrea californica)
Hummingbird Bush (Beloperone californica)
Desert Dendelion (Malacothrix californica glabrata)
Desert mallow (Sphaeralcea ambigua)
Bladder pod (Isomeris arborea)
Ocotillo (Fouquieria splendens)
Indian Wheat (Plantago insularis)
Creosote (Larrea divaricata)

Monkey flower (Mimulus bigelouii)
Desert Poppy (Eschscholtzia glyptosperma)
Notch-leaved phacelia (Phacelia crenulata)
Pebble Pincushion (Chaenactis carphoclinia)
Parachute Plant (Atrichoseris platyphlla)
Gilia (Gilia spp.)
Lotus (Desert Rock Pea) (Lotus rigidus)
Bellyflower (Monoptilon bellioides)
Evening primrose (Oenothera spp.)
Beaver Tail Cactus (Opuntia basilaris)
Croton (Croton californica)
Desert Straw (Stephanomeria pauciflora)
California Fan Palm (Washingtonia filifera)
Desert Milkweed (Ascelpias subulata)
Milkweed (Asclepias albicans)
Burrobush (Franseria dumosa)
Desert Milk Aster (Stephanomerria runcinata)
Artichokes (Viguiera deltoides parishii)
Prince's Plume (Stanleyi pinnata)
Desert Allysum (Lepidum fremontii)
Paper Bag Bush (Salazaria mexicana)
Desert Mallow (Sphaercalcea emoryi)
Rock Hibiscus (Hibiscus denudatus)
Desert Box Thorn (Lycium andersonii)
Desert Lily (Hesperocallis undulata)
Climbing Milkweed (Sarcostemna hirtellum)
Paraschute Plant (Atrichoseris platyphylla)
Laxflower (Baileya pauciradiata)
White Tackstem (Calycoseris wrightii)
White Pincushion (Chaenactis fremontii)
Desert Star (Monoptilon belloides)
Chinchweed (Pectis papposa)
Rock Daisy (Perityle emoryi)
Desert Velvet (Psathryrotes ramosissima)
Yellowheads (Trichoptilium incisum)
Narrow leaved forget-me-not (Cryptantha angustifolia)
Lax forget-me-not (Cryptantha dumetorum)
Rough stemmed forget-me-not (Cryptantha holoptera)
White haired forget-me-not (Cryptantha maritima)
Purple rooted (Cryptantha micrantha)
Spectacle Pod (Dithyria californica)
Jumping Cholla (Opuntia bigelovii)
Threadstem or "Nets" (Nema cladus rubescens)
Coyote melon (Cucurbita palmata)
Broad-leaved Stillingia (Stillingia spinulosa)
Sillcy Dalea (Dalea mollis)
Desert Blue Bells (Phacelia campanula)
Common Phacelia (Phacelia distans)
Purplemat (Nama demissum deserti)
Chia (Salvia columbariae)

(Mentzelia albicaulis)
(Mentzelia desertorum)
(Mentzelia hirsuitissima stenophylla)
Giant Sand Blazing Star (Mentzelia inuolucrata megalantha)
Desert Five Spot (Eremelche rotundifolium)
Sand Verbena (Abronia villosa)
(Camissonia arenaria)
Bottlebrush (Camissonia boothii desertorum)
Sun Cup (Camissonia brevipes)
Heart Leaved Primrose (Camissia cardiophylla)
(Camissonia clauiformis)

Mecca Hills Activity Plan - Wildlife

The majority of the wildlife in the Mecca Hills is typical of the creosote scrub community of the Colorado desert. However within the area faunal compositions, particularly reptiles, rodents and birds, will vary with local soils, terrain and vegetation. The following list gives those species which are generally found in the habitat types represented within the Mecca Hills.

Reptiles:
*Western whiptail (Cnemidophorus tigris)
*Zebra-tailed lizard (Callisaurus draconoides)
*Sideblotched lizard (Uta stansburiana)
Desert spiny lizard (Sceloporus magister)
Chuckwalla (Saucomalus obesus)
*Desert iguana (Dipsosaurus dorsalis)
Collared lizard (Crotaphytus collaris)
Leopard lizard (C. wislizenii)
Desert horned lizard (Phrynosoma platyrhinos)
Desert tortoise (Gopherus deserti)
Western diamondback (Crotalus atrox)
*Sidewinder (Crotalus cerastes)

Birds:
*Verdin
*Black-throated Sparrow
*Loggerhead Shrike
*Ash-throated Flycatcher
*Gambel's Quail
*Mourning Dove
*Roadrunner
Costa's Hummingbird
Say's Phoege
Cliff Swallow
Black-tailed Gnatcatcher
*Rock Wren
Cactus Wren
*House Finch
Lesser Nighthawk
*Common Raven
*Red-tailed Hawk
*Prairie Falcon

Mammals:
Merriam's kangaroo rat (Dipodomys merriami)
Little pocket mouse (Perognathus longimembris)
Desert pocket mouse (P. penicillatus)
Longtail pocket mouse (P. formuosus)
Cactus mouse (Peromysicus eremicus)
*Desert woodrat (Neotoma lepida)
*Blacktail jackrabbit (Lepus californicus)

*Whitetail antelope ground squirrel
(Amnospermophilus leucurus)
*Desert kit fox (Vulpes mactrotis)
Coyote (Canis latrans)
Nelson's bighorn sheep (Ovis canadensis nelsoni)

Priority Species

The following species should be highlighted either due to listed status or other special considerations.

Bighorn sheep - Bighorn sheep have been observed crossing from the Orocopia Mountains to the Mecca Hills (Blong, pers. comm. and Sering, pers. comm.). The bighorn sheep appear to water at the improved water source at Hidden Spring as there is abundant sign and trailing in the area. The amount of sign would suggest that Hidden Spring is well used by bighorn sheep during the summer months when water is critical. Nelson's bighorn sheep, has been tentatively placed on the Bureau's list of sensitive species. The Nelson bighorn populations of California are either declining or remnent throughout their range with the exception of one stable population in the Avawatz Mountains. Recreation, particularly the use of ORVs has been shown to have a detrimental effect on the use of an area by bighorn sheep. A study done by DeForge showed an inverse correlation with sheep use of an area and the amount of recreational ORV use of an area. Dick Weaver of the California Department of Fish and Game correlated heavy recreational use with the absence of bighorn in the Sierra Nevada. Dunaway (1971) noted decreases in sheep numbers in three areas that had increases in recreational use and fairly stable populations in two areas not receiving heavy recreational use.

Prairie Falcon - There is one known nesting site in the Mecca Hills. Single falcons have been observed several times and the area is generally believed to support several other pairs of Prairie Falcons. The Prairie Falcon has been placed on the Audubon Society's Blue list[1]. The species is generally believed to be declining throughout much of its range. The California Desert is thought to support the best remaining populations in California.

Spotted bat (Euderma maculata) - This species is the rarest of our North American bats (Brown, 1979). Four specimens have been taken within the California Desert Conservation Area (CDCA), all before 1956. One of the specimens was found in the Mecca Hills.

[1]The Audubon Society Blue List is an early warning list to those species exhibiting declines throughout the majority of their range.

Desert tortoise - Recent surveys contracted by the BLM have shown that the tortoise populations in California have declined often drastically from historic numbers. The tortoise has been extirpated from large portions of its range. Loss of habitat, the decline of habitat quality and collection are the primary causes for the decline. The desert tortoise is presently under status review by the Federal Fish and Wildlife Service and is fully protected by the California Department of Fish and Game.

# VISUAL RESOURCES

The Mecca Hills are composed of two Visual Resource Management units established to meet VRM criteria.

The northern section is composed of a Class III rating and the southern and a far eastern portion have been evaluated Class II.

The Class II areas are characterized by scenery of great geological upheaval. Immense layers of strata have been tilted, folded, uplifted and subsequently explored by erosional forces. The monolithic rock structures are awesome as one drives along Box Canyon Wash. In some areas, such as Painted Canyon, and in general throughout the Meccas, the various colors of the strata stand out vividly and contrast with each other. The vegetation is sparse in the hills, and a few species are found in the washes. A paved road through Box Canyon and a graded road and campground in Painted Canyon comprise the only intrusions in the study area.

The Class II areas are characterized by wide valleys composed of bajadas, washes, low hills and areas of desert pavement. Existing intrusions are reduced by the vastness of the area. Intrusions include dirt roads, tank tracks, mines, general ORV disturbance and wood pole transmission lines.

The Class III areas are characterized by smoothly eroded hills of sedimentary composition divided by many washes. There is little vegetation with almost no variation. The area is a badlands landscape type with the principal view of it from I-10 looking south. Many intrusions are found including the I-10 pumping station. The area is similar to a multitude of other bajada composed valleys in the region.

The scenic quality of the area has been impacted by the intense ORV activity in the Mecca Hills. Restriction of ORV is essential to control rampant destruction of this valuable resource.

The visual management classes are minimum management objectives for the units. Each visual resource management class describes a different degree of modification allowed in the basic elements. The primary character of the landscape should be retained regardless of the degree of modification.

Class II

Changes in any of the basic elements (form, line, color, texture) caused by a management activity should not be evident in the characteristic landscape. A contrast may be seen but should not attract attention.

Class III

Contrasts to the basic elements (form, line, color, texture) caused by a management activity may be evident and begin to attract attention in the characteristic landscape. However, the changes should remain subordinate to the existing characteristic landscape.

WILDERNESS CLASSIFICATION

AREA 343

## I. PHYSICAL BOUNDARIES

This area is bounded on the north by Interstate 10, on the east and southeast by the paved Box Canyon Road; and, on the south-southeast, by the Coachella Canal and a portion of a Riverside County maintained road.

## II. LAND OWNERSHIP

The boundaries include approximately 24 sections of non-public land scattered throughout, mostly in a checkerboard pattern and accounting for 35 percent of the total land area.

## III. DESCRIPTION OF ENVIRONMENT

The majority of this roadless area contains the extremely colorful, deeply eroded, and sparsely-vegetated Mecca Hills. Small, narrow, steep-walled canyons wind throughout this area creating a natural maze within this badlands labyrinth. Sandy washes dissect the area and contain stands of ironwood, smoke trees, and palo verde, while scattered stands of ocotillo grow on the hilly slopes. Some portions of the Mecca Hills, known also as the Mud Hills, show evidence of the presence of the San Andreas Fault which has uplifted adding to the erosion and breaking off of huge rock slabs. The northern and western portions of this roadless area are more gently sloping and include large desert washes such as Thermal Canyon. This portion is either in private land ownership or checkerboard ownership which creates areas of noncontiguous public lands.

## IV. NATURAL CONDITION

Within the solidly blocked portion of the Mecca Hills man's work is substantially unnoticeable and is an area where the earth and its community of life are undisturbed by man. Presently, the area is used by off-road vehicles, but much of the use occurs in the washes where visible alteration of the primeval character and influence of the land is not readily apparent. Some primitive ways do exist on the hills and erosion has occurred on the steep slopes. Although visible, the intimacy and extent of the canyon systems

within the Meccas greatly reduces the imprint of man's work. The only portion within the Mecca Hills which has been excluded as not containing wilderness values is the Riverside County maintained road and campground in Painted Canyon. There is an Airway Beacon site and service road located in this area south of Cactus City.

The potential Wilderness Study Area boundary is common with the roadless area boundary on the east, west and south sides. The northwestern boundary follows a wash which cuts diagonally across the public/private boundary to near the beacon tower, then generally follows the contour at about the 1600 foot level back to Box Springs Road.

V. OUTSTANDING OPPORTUNITIES FOR SOLITUDE OR A PRIMITIVE AND UNCONFINED TYPE OF RECREATION

Unlimited outstanding opportunities for solitude exist in the Mecca Hills due to the intricate passageways and complex canyon system which wind into the interior and tend to create a psychologically large area which effectively screen users from one another. Combined with this intimate type of solitude, outstanding opportunities for a primitive and unconfined type of recreation experience is easily obtained. Diverse landforms and colorful and highly eroded rugged terrain all add to primitive and unconfined movement.

VI. SUMMARY OF PUBLIC COMMENTS

Comments against inclusion cited the history of off-road vehicle use. Field examination confirmed that evidence of this use was, for the most part, confined to sandy canyon bottoms and would pass with time; therefore, the impact was not long-term and would not impair the suitability of the area for consideration as wilderness. Other public comments addressed study phase considerations.

AREA 344

I. PHYSICAL BOUNDARIES

This roadless area parallels the paved Box Canyon Road to the west and northwest; Interstate 10 to the north; the Salt Creek Road and Kaiser Industrial Railroad to the east and southeast; and, to the south, the Bradshaw Stage Road and access road along the Coachella Canal and a wood pole uitlity line road.

## II. LAND OWNERSHIP

Sections of non-public land forming a scattered checkerboard pattern account for approximately 35 percent of the area.

## III. DESCRIPTION OF ENVIRONMENT

This area includes both the Orocopia Mountains and the southeastern portion of the Mecca Hills. The Mecca Hills include the often visited Sheep Hole Oasis, Hidden Springs, and the grotto. Rugged, colorful canyon walls are highly varied and in some situations exhibit fresh fault scarps. The water found at Hidden Springs is a source for wildlife such as coyote, rabbits, and Bighorn Sheep. In the desert washes grow ironwood, palo verde, smoke tree, and the palm enclaves at Sheep Hole Oasis and Hidden Springs. The Orocopia Mountains are an extremely diverse and varied mountain landform. The northern portion is characterized by open valleys, dissected ridges, and an isolated mountain. The southern portion consists of highly colorful and dramatic eroded canyons and ridges. Vegetation is sparse but varied. In the open valleys are found creosote along with ironwood in the washes. Ocotillo is found in the hilly slopes as well as a small cluster of yucca near the Red Canyon jeep trail. Views of the Salton Sea are notable throughout the southern portion of this roadless area. The northeastern portion of this area contains a checkerboard pattern of noncontiguous public lands as does a portion of the interior of the Orocopia Mountains.

## IV. NATURAL CONDITION

Much of this area is within a BLM area closed to motorized vehicles and is an area which retains its primeval character and influence with the imprint of man'w work substantially unnoticeable. Some past mining activities have occurred in the Orocopias but are of insignificant importance and have done little to nothing to alter the natural condition of the land. Some primitive ways do penetrate portions of this roadless area, but the majority are in washes or in areas where the immensity and ruggedness of the terrain remain the dominant feature. In the northeast corner the natural character has been adversely affected by bulldozing scarps and ORV scars. The northern boundary also excludes the flood control dike system south of Interstate 10, and flood control dikes north of the Coachella Canal along the southern boundary. All of the checkerboard land ownership pattern, in the area, has been excluded from the inventory as it does not contain contiguous public land.

## V. OUTSTANDING OPPORTUNITIES FOR SOLITUDE OR A PRIMITIVE AND UNCONFINED TYPE OF RECREATION

The rugged character of the terrain and the diversity of land forms insure outstanding opportunities for solitude in both areas. Rocky outcrops and numerous canyons add to the ability of the landscape to screen visitors and add to the sense of isolation. Opportunities for a primitive and unconfined type of recreation are outstanding due to diversity and the ability of the site to ensure unrestricted movement.

## VI. SUMMARY OF PUBLIC COMMENTS

Comments received pointed out popularity of the area by recreational vehicle users, the overall high natural value of much of the area and questioned the BLM about deleting the extreme eastern end of the roadless area.

# Analysis of Public Comments

First Draft

Comment Period - September 28, 1989 - November 9, 1979 extended to December 7, 1979, in response to public requests. Total 71 days.

Field Metting - December 1, 1979, 10:10 a.m., at Shaver's Well, 20 people in attendance.

One hundred sixty-two (162) comments were received on the draft of the Mecca Hills Recreation Management Plan. Issues addressed included:

1. The need for dispersed camping and campfires;

2. More off-highway vehicle (OHV) trails than shown (change designation to existing roads, and trails);

3. More public education;

4. Allowing firearms use;

5. Allowing the corridor through Painted Canyon to remain open;

6. Wilderness designation for the entire area which would prohibit OHV use in the hills;

7. Closures of selected routes (including Blakes Hill);

8. No kiosks are needed.

Approximately 60% of the comments received were OHV oriented, 30% were environmentalist oriented, 5% were in concurrence with the plan, and 5% were informational inquiries.

As a result of comments received and re-evaluation of the draft plan, the following changes were made to produce the revised draft plan:

1. The plan designated larger ares for OHV use on designated routes of travel.

2. Firearms were allowed in accordance with State and local laws.

3. Dispersed camping with campfires were allowed.

4. Campgrounds at Painted Canyon and Box Canyon were simplified:

    a. No water provided.
    b. No ramadas and table at Box Canyon.
    c. Remove primitive campgrounds, replace with dispersed camping.

Revised Draft

Comment Period - February 15, 1980 - April 21, 1980

Twenty-five (25) comments were received on the revised draft plan. Issues addressed included the desire to:

1. Designate the area as wilderness;

2. Close the Painted Canyon corridor entirely;

3. Prohibit firearms;

4. Designate the area as an addition to Joshua Tree National Monument;

5. Close Hidden Springs Canyon and Sheep Hole Oasis to all vehicle use;

6. Close Blake's Hill route;

7. Form a cooperative agreement with the Cabazon Indians to manage Painted Canyon;

8. Leave the Mecca Hills "as is" and to make no improvements;

9. Change the area shown as "designated roads and trails" to "existing roads and trails";

10. Create open areas;

11. Provide a corridor through Painted Canyon completely through the hills.

Comments were split equally between OHV oriented responses and environmentalist oriented responses. Approximately 16% of the comments were in concurrence with the plan's recommendations. Information requests contributed to approximately 12% of the responses.

As a result of comments received and re-evaluation, the following changes were made to produce the Final Mecca Hills Recreation Plan:

1. A seasonal closure of Hidden Springs Canyon and the Mecca-Copia trail for wildlife protection between June 1 and October 1.

2. Change "designated roads and trails" to "existing roads and ways" on BLM managed lands. Rights-of-way will be acquired to insure the continued legal use of the area.

# BIBLIOGRAPHY


Aleshire, Peter, "The Swallows of the Mecca Hills", Desert Sun, Palm Desert, 12/24/78

Barnes, Mabel S., "The Mecca Hills, A Report to the Desert Subcommittee, Southern California Regional Conservation Committee Sierra Club", 1973.

Bean, Lowell J., "Mukat's People", The Cahuilla Indians of Southern California, Berkeley; Unversity of California Press, 1972.

Bureau of Land Management, Desert Plan Staff Ethnographic Files, 1979.

Burt, William H. and R. R. Grossemheider, A Field Guide to the Mammals, Houghton Mifflin Company, Boston, 1976.

DeForge, James R., Man's Invasion into the Bighorn's Habitat, Desert Bighorn Council Transactions, 1972.

Dunaway, Dave J., Human disturbance as a limiting factor of Sierra Nevada Bighorn Sheep, North American Wild Sheep Conference, Vol. 14, p. 127126, 1971.

Environmental Feasibility Studies: 1976: Sohio West Coast to MidContinent Pipeline Project: Draft EIR Vol. 2, Part 1, Los Angeles, California.

Farrens, Paul and Jerry Magee, "VRM Field Notes of the Mecca Hills", 10/15/76.

Hooper, Lucille, "The Cahuilla Indians," Berkeley, 1920; University of California Publications in American Archaeology and Ethnography 16(6). Reprinted in Studies in California Culture, Malki Press, 1978.

Ingles, Lloyd G., Mammals of the Pacific States, Stanford Murphy, MA, 1979: CDCA Invertebrate Paleontological Resources Study: Desert Planning Staff contract # USDI. 1978: Seismic Safety and Safety General Plan Elements.

James, Harry C., "The Cahuilla Indians," Banning, California 1960; Malki Museum Press.

Kroeber, Alfred L., "Ethnography of the Cahuilla Indians," Berkeley; University of California Publications in American Archaeology and Ethnology 8(2), 1908.

Handbook of the Indians of California, Bureau of American Ethnology, Buttetin 78. (Dover Publications, New York, 1976.)

Laidlaw, Robert, Personal Communication, 1979.

Lando, Richard and Ruby Modesto, Temel Wakhish; A Desert Cahuilla Village. Journal of California Anthropolgy 4(1): 95-112, 1977.

National Park Service, Mojave Sonoran Desert Study, National Landsmark Program.

Norris, RM & Webb, RW: 1976: Geology of California, John Wiley & Sons, New York, pp. 364.

Peterson, Roger Tory, A Field Guide to Western Birds, Houghton Mifflin Company, Boston, 1961.

Ryan, R. Mark, Mammals of Deep Canyon, The Desert Museum, Palm Springs, California, 1968.

Stebbins, Robert C., A Field Guide to Western Reptiles and Amphibians, Houghton Mifflin Company, Boston, 1966.

Strong, William Duncan, Aboriginal Society in Southern California, Berkeley; University of California Publications in American Archaeology and Ethnology 26. (Malki Museum Press, Banning, Californai, 1972.)

Technical Report, County of Riverside: by ENVICOM.

Wilke, Philip J., Late Prehistoric Human Ecology at Lake Cahuilla, Coachella Valley, California, Berkeley, 1978.

Wilke, Philip J., and Harry W. Lawton, Early Observations of Cultural Geography of Coachella Valley. Ramona, California, Ballena Press Anthropological Papers No. 3, 1975.

Woodburne, M. B., "Vertibrate fossils in the California Desert Conservation Area", Desert Planning Staff Contrast Study (USBLM), 1977.

Letters:

Crowell, John, University of California at Santa Barbara, Department of Geological Sciences, letter to Dr. Paul Martin, Department of Geoscience, University of Arizona, Tucson, January 19, 1976.

Silver, Leon T., Professor of Geology, California Institute of Technology, Pasadena, California 91109, to Neil Pfulb, DPS Director.

Worthley, Fred A. Jr., Regional Manager, Department of Fish and Game to Mr. Gerald E. Hillier, District Manager, BLM Riverside, July 9, 1979.

Maps:

Cottonwood Springs and Coachella USGS Quad Maps, 15 minute series.

Geological Maps of California, Salton Sea and Santa Ana,

Interim Critical Management Plan, Bureau of Land Management

Agency Assistance:

Riverside County Assessor's Office

Riverside County Parks Department, Paul Romero and Dan Graber

Interviews:

Allen, Dr. Clarence, California Institute of Technology, by telephone.

Barnes, Mabel Dr., Sierra Club

MacPherson, Richard, California Association of 4WD Clubs Inc.

Photographs:

Peter Aleshire, Daily News, Indio, California.

ENVIRONMENTAL ASSESSMENT RECORD

Mecca Hills Recreation Management
Plan and Implementation

Pamela Marcotte Elliott — July 30, 1980
Team Leader, Landscape Architect/ Outdoor Recreation Planner — Date

Area Manager, Indio Resource Area — July 31, 1980
Date

William H. Collins — August 1, 1980
Environmental Coordinator — Date

District Manager, Riverside — Aug 4, 1980
Date

## I. DESCRIPTION OF THE PROPOSED ACTION

A. Allow the use of off-road vehicles only in designated areas (see Management Plan Map).

B. Provide increased enforcement personnel to manage visitor use in the area.

C. Acquire rights-of-ways through key privately owned sections of insure the continued legal access of the area.

D. Protect the wildlife habitat by closing critical areas to vehicular use during key seasons.

E. Provide information kiosks at key locations. These centers will inform visitors of recreational opportunities in the Hills and interpret significant features.

F. Prohibit the cutting of live trees, collection of dead and down vegetation for firewood is permissiable.

G. Institute an interpretive program to make visitors aware of the resources in the area.

H. The safe use of firearms is permitted when in accordance with California Fish and Game and local regulations.

I. Encourage camping in designated campground. Dispersed camping may take place in any area of the Mecca Hills with the exception of Hidden Springs Oasis and Sheep Hole Oasis.

J. Acquire from the County of Riverside the campground at Painted Canyon to provide for continuity in management and redesign of the facilities.

Refer to MHRMP for complete description, Management Plan Section, p.17.

## II. ALTERNATIVE ACTION

NO ACTION ALTERNATIVE The no action alternative would perpetuate the existing situation in which the Bureau has little control on the Mecca Hills. The degradation of the resource values would continue and conflicts between users would persist and probably increase overtime. Therefore, the no action alternative is not a viable plan.

## III. DESCRIPTION OF THE EXISTING ENVIRONMENT

### A. Non-Living Components

#### 1. Air

The general climate of the area is hot and arid. Contributing climatic factors are low rainfall (less

than 3" annually), low humidity, high summer temperatures, abundant sunshine, relatively cool winters and frequent strong winds.

Rain during winter months is slow and gentle allowing moisture sufficient time to soak into the ground. Occasionally during years of heavier than average rainfall, rains fall hard and fast causing heavy runoff and major flash flooding. The same situation frequently occurs during summer thunderstorms.

Present sources of petrochemical pollutants are relatively minimal, the major source being emissions from passing vehicles along Interstate 10 and on Highway 195. Suspended particulate matter is also minimal except during windy conditions. During summer months occasional hazy conditions exist resulting in part from smog "spillover" from the Los Angeles basin.

2. Lands

The Mecca Hills are composed of soils of a badlands configuration. The hills are a textbook of geologic features harboring rocks 600 million years old.

Because of a special combination of factors including arid climate, recent erosion and geologic structure, the general variety and exposure of geological features is remarkable. The effect of the great faults in the region have been to bring together five distinct geologic terrains rarely found so compactly juxtaposed.

The lack of vegetation and recent geologic stripping of drainage into the Salton depression provide nearly 100 percent exposure of these diverse geological components.

Refer to MHRMP Appendix for complete description, Soils and Geology, p. 45.

B. Living Components

1. Vegetation

The vegetation in the Mecca Hills is sparse. The area receives only 3" of annual rainfall which accounts for the sparsity of vegetation.

Two rare but not endangered plants listed by the California Native Plant Society are found in the area. The Mecca aster, Machaerantaera cognatha, and the Orocopia sage, Salvia greatae.

Refer to the MHRMP Appendix for complete vegetation descriptions, Vegetation, p. 49.

2. Wildlife

The majority of the wildlife in the Mecca Hills is typical of the creosote scrub community of the Colorado Desert. Within the area faunal compositions, particularly reptiles, rodents and birds, will vary with local soils, terrain and vegetation.

Bighorn sheep have been observed crossing from the Orocopia Mountains to the Mecca Hills (Blong, pers. com. and Sering, pers. com.). The bighorn sheep appear to water at the improved water source in the summer months at Hidden Spring as there is abundant sign and trailing in the area.

Prairie Falcon, desert tortoise and the spotted bat (Euderma maculata) have been observed in the area.

There are no endangered, threatened or rare species within the Mecca Hills Recreation Area. The desert tortoise is under status review by the Fish and Wildlife Service. The race of bighorn sheep (Avis canadensis nelsoni) is found in a number of desert ranges. This race is tentatively listed as sensitive by the BLM. All species of bighorn sheep are fully protected under California State law.

Refer to the MHRMP Appendix for complete wildlife descriptions, Wildlife, p. 52.

C. Human Values

1. Socio-cultural

The Mecca Hills are presently used extensively by ORV enthusiasts. The area's popularity stems from its proximity to major population centers and from its ease of access from Interstate 10.

Refer to the MHRMP for complete description, Background Section, Present Status and Use, p.8.

2. Wilderness

The Wilderness Inventory of the California Desert Conservation Area has determined that portions of the Mecca Hills meet the criteria defined in Section 2(c) of the Wilderness Act of 1964. The area has thus been designated a Wilderness Study Area (see map in MHRMP Appendix).

However, the USBLM Desert Planning Staff has determined in their balance alternative, that the Hills would best be used as an area of controlled vehicular access. This process was in accordance with the BLM's mandated multiple use policy. Congress will determine if the area will or will not become a wilderness area.

Refer to the MHRMP Appendix for complete description, Wilderness, p. 58.

3. Visual Resources

The Mecca Hills are characterized by scenery of great geological upheaval. Immense layers of strata have been tilted, folded, uplifted and subsequently exposed by erosional forces. The various colors of the strata stand out vividly in the sparsely vegetation hills.

The peripheral hills are characterized by bajadas, washes and low rolling mounds. Wide desert valleys with sweeping vistas are present.

The Visual Resource Management(VRM) classes for the area are Class II and III. Each visual resource management class defines a different degree of modification allowed in the basic landscape elements. The primary character of the landscape should be retained regardless of the degree of modification.

See MHRMP Appendix for complete VRM description, VRM, p. 56.

4. Cultural Resources

The Mecca Hills have been utilized by human populations for a variety of purposes, and for a considerable length of time.

Archaeological evidence indicates the area was probably used extensively throughout the late prehistoric period or from approximately 900 - 1000 A.D. until 1500 - 1600 A.D. Earlier human occupation or utilization of this area is likely to have occurred, but remains to be adequately documented. The Mecca Hills have never been subjected to a complete, systematic archaeological reconnaissance, thus the full extent and variety of archaeological remains in the area is presently unknown.

5. Native American Concerns

The Mecca Hills are clearly significant to local contemporary Native American belief and value systems. The region figures predominantly in Desert Cahuilla mythology and is known to serve a variety of contemporary functions.

These range from simple resource procurement to sacred areas of imminent ritual importance. The specific locations of religious and ceremonial sites are often considered by Native American groups to be in and of themselves sacred. Such knowledge is often restricted, even within a given cultural group, to certain native "experts." Public knowledge of special sacred areas or locations could be sufficient impact to destroy the site's sanctity.

Shaver's Well is the only historical locale identified within the Mecca Hills study area which could possibly be considered significant as per criteria defined in 36 CFR 60.6. The site, however, has been severely impacted and the cabin which once stood here is now gone.

See MHRMP Appendix for complete Cultural Resource description, Cultural Resources, p. 37.

## IV. ANALYSIS OF PROPOSED ACTION

### A. Environmental Impacts

#### 1. Anticipated Impacts of Proposed Action

##### a. Non-Living Components

(1) Air

No adverse impacts to air quality is anticipated as a result from proposed action. The closure of areas to vehicular travel will decrease the levels of dust in the area, thus improving air quality.

(2) Land

No adverse impact to land will result from the proposed action. Closure of vehicular routes will protect critical geologic formations from further degradation.

##### b. Living Components

(1) Vegetation

The two rare but not endangered plants which have been located in the Mecca Hills will be unaffected by the MHRMP. The location of the Mecca Aster in Painted Canyon will have no significant impact since the existing route of travel into the canyon (a county-maintained road) will continue to be used as access.

(2) Wildlife

There are no impacts to endangered, threatened or rare wildlife species with the implementation of this Activity Plan. Wildlife will benefit from the closure of roads to vehicular travel and the gradual return of these trails to the natural condition. The seasonal closure at Hidden Springs and the Mecca-Copia Trail will aid in the protection of the bighorn sheep who water in the Meccas.

There may be some loss of wildlife habitat from campers. However, this will be minimal since camping will be dispersed and areas of concentrated use have been previously used.

There will be some loss of wildlife habitat in the construction of a restroom at the proposed campground; however, the area will be small and overall effect minimal.

c. Human Values

(1) Socio-Cultural

Due to the closure of some trails in the Mecca Hills, motorized recreation will be impacted. However, major off-road vehicle areas have been left open to accommodate this recreation activity.

Motorized and non-motorized recreationists will benefit from the separation of uses. Hikers, backpackers and primitive campers will enjoy the peace, safety and solitude associated with canyons designated for non-motorized recreation. Vehicle oriented users will enjoy the peace of mind in knowing that foot travel will be confined primarily to canyons isolated from their use.

Conflicts in recreational use will therefore be greatly diminished. A safer recreational experience will therefore be provided for all users.

Recreationists will also benefit from the improved facilities at camping areas.

(2) Wilderness

Since all routes of travel proposed for designated vehicle use in the MHRMP are existing there will be no impairment to the area's suitability for wilderness if Congress so deems. The closure of trails will protect wilderness values in remaining areas. Proposed camping areas make use of existing camping locations, so additional impacts are not anticipated.

If Congress designates the area for wilderness, the portions of the Mecca Hills that are proposed for off-road vehicular access will be closed to motorized use. Developed camping areas at Painted Canyon and Box Canyon are on existing roads and can serve as trail heads for wilderness recreation. Primitive camping area signs will be removed to preserve the wilderness character.

(3) Visual Resources

The MHRMP will have little significant impact on the visual resources. The closure of areas to vehicle use will benefit the area's scenic quality since impacts will be reduced.

Camping facilities and signs will be designed in harmony with the surroundings. Therefore, the visual impacts will be reduced.

(4) Cultural Resources

The cultural resources and Native American values will not be adversely impacts by the implementation of the MHRMP. The closure of trails for vehicle use in critical areas will protect values from further destruction.

2. Recommendations for Mitigation or Enhancement

a. Wildlife

(1) The water development at Hidden Spring should be inspected annually, preferably each spring, and maintained as necessary to insure that it continues to be a viable wildlife water source.

(2) Known raptor nesting sites should be inspected each spring to determine if they are active and record fledging success.

b. Wilderness

If Congress designates the area Wilderness, off-road motorized use will be prohibited in areas now designated open to vehicular use. Developed campgrounds on existing roads will remain.

No irreversible or irretrievable impacts are anticipated. Impacts to resources are all of a reversible nature.

## V. RECORDATION OF PERSONS, GROUPS AND GOVERNMENTAL AGENCIES CONSULTED

County of Riverside, Parks and Recreation Department
U.S. BLM Desert Planning Staff
California Department of Fish and Game
Richard McPherson, California Association of 4-Wheel Drive
Clubs, Inc.
Dr. Mabel Barnes, Sierra Club
Cabazon Indian Tribe

## VI. INTENSITY OF PUBLIC INTEREST

The intensity of public interest was moderate. Interest is split between environmentally oriented groups, vehicle associations and native american groups. See Appendix to the MHRMP for summary of comment received (p. 62 and 63).

## VII. PARTICIPATING STAFF

Pamela M. Elliott Team Leader, Landscape Architect/Outdoor Recreation Planner
Faye J. Davis Wildlife Biologist
Roger Haskins Geologist
Garrett Fenenga Archaeologist
Dr. Hyrum Johnson Botanist

## VIII. SUMMARY AND CONCLUSION

Anticipated impacts are low to neglibible, of a reversible nature, and amenable to mitigation.

Implementation of the proposed Mecca Hills Recreation Plan will be a positive step towards management of recreation conflicts that have occurred for years in the area. Minor impacts to resources will be overwhelmingly overshadowed by its positive nature.

It is concluded that the proposed action is not a major Federal action significantly affecting the quality of the environment , and an Environmental Impact Statement pursuant to Section 102(2) of the National Environmental Policy Act is not required.

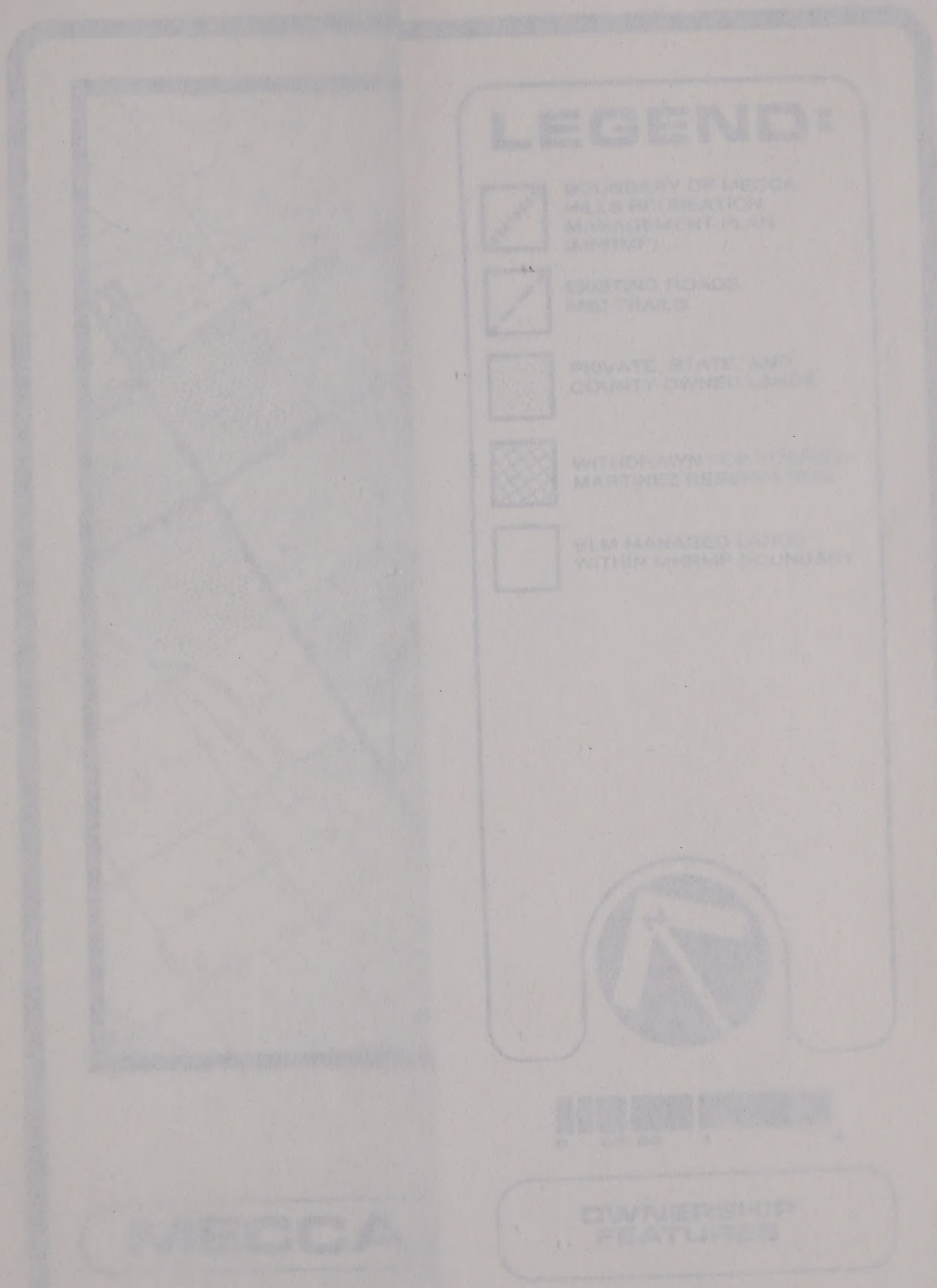
David D Dodds — 8/1/80

Area Manager, Indio Resource Area — Date

I concur:

Edmund E Hastey — 8/4/80

District Manager, Riverside — Date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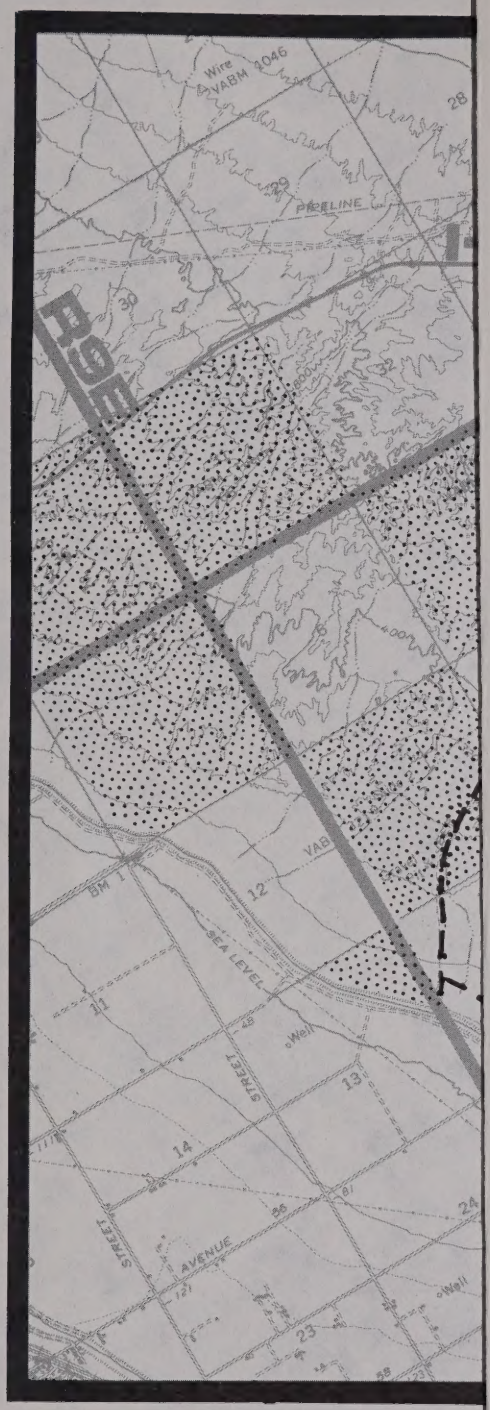


# LEGEND:

- BOUNDARY OF MECCA HILLS RECREATION MANAGEMENT PLAN (MHRMP)
- EXISTING ROADS AND TRAILS
- PRIVATE, STATE, AND COUNTY OWNED LANDS
- WITHDRAWN FOR TORRES-MARTINEZ RESERVATION
- BLM MANAGED LANDS WITHIN MHRMP BOUNDARY

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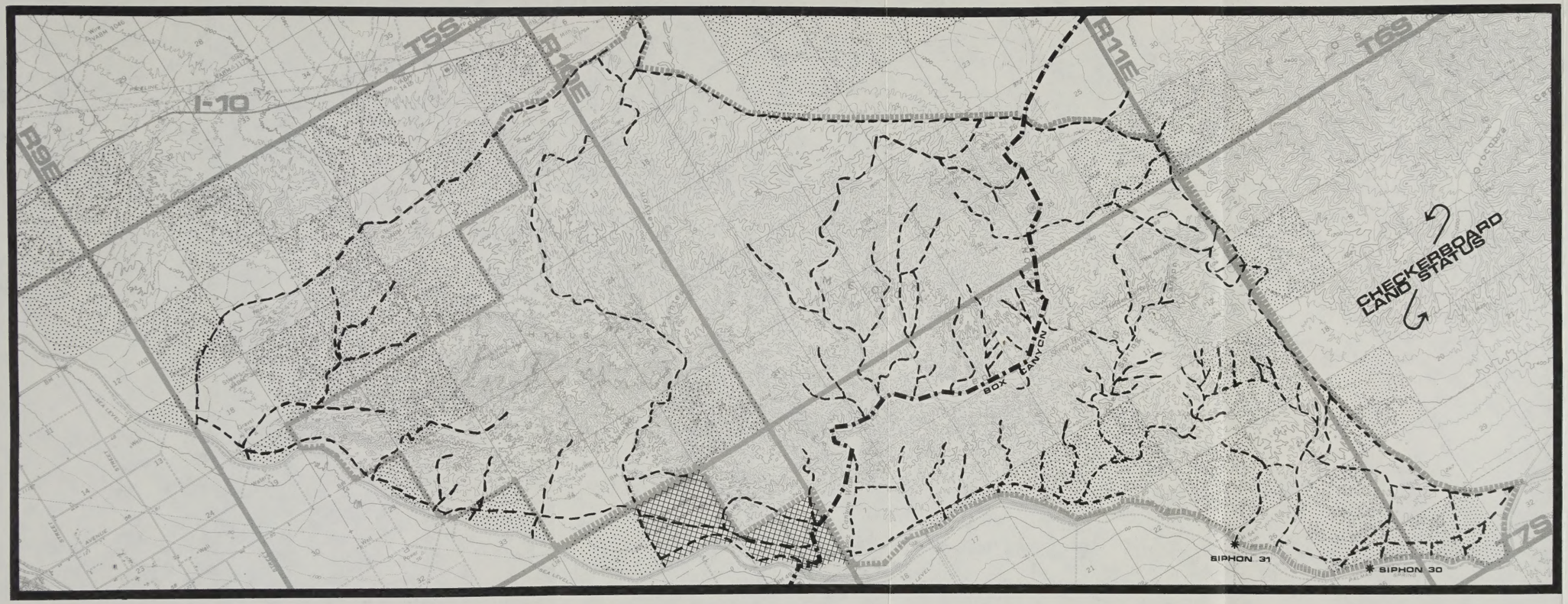
# MECCA

## OWNERSHIP FEATURES

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OWNERSHIP FEATURES

# MECCA HILLS RECREATION MANAGEMENT PLAN

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT